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ABSTRACT

Designed for communication aides working under the direction of speech pathologists in Head Start and preschool centers in public schools, the handbook provides information on normal child development as well as speech, hearing, and language problems. Reviewed in the section on normal development are speech, phonemic, receptive language, expressive language, social, and motor development. Administrative procedures involving the paraprofessionals are explained to include screening, scheduling, and recording pupil performance. A final section examines the application of behavioral principles. Among seven appendixes are lists of bilingual testing materials and articulation tests. (CL)

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THE UNIVERSITY OF WYOMING
PROJECT TAPP

COMMUNICATION AIDE HANDBOOK

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1973

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Forward

This handbook is a compilation of materials designed for communication aides working in Headstart and pre-school centers or in the public school setting. The materials in this handbook are intended to be used as a basic training and information guide. Training in the delivery of actual programs, e.g., articulation or language, or particular methodology, is at the disgression of the individual supervising speech pathologist.

The impetus for writing this manual came from a pilot communication aide program, developed by Andrea Kasper and the authors, which was carried out during the 1972-1973 academic year in the Headstart Centers in the Tri-County Development Corporation. Mr. Ted Stanfield, Director, and his staff are to be commended for their outstanding cooperation during the development of the pilot program.

The authors would like to thank the University of Wyoming Speech Pathology students enrolled in the Spring, 1973, section of "Organization and Administration of a Public School Speech and Hearing Program"-Janis A. Jelinek, Instructor-for their contributions to the original draft of this manual.

Special contributions to materials in the appendix were made by Andrea Kasper, Parent Program/Followup Supervisor for the University of Wyoming Communicative Disorders and Parent Training Program, and Kathy Watson. A special thanks goes to Merla McJunkin and Nancy Reed for typing the original and final drafts of this handbook.

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CHAPTER I

INTRODUCTION

The purpose of this handbook is to provide an information and training guide for communication or speech aides who are employed to work with communicatively handicapped pre- and elementary-school age children. Included in this handbook are sections on (1) the roles and responsibilities of the communication or speech aide; (2) normal development: (3) speech, hearing, and language problems of the young child; (4) administrative procedures; (5) behavioral principles and their application; and (6) appendices which include sections on definitions of terms and information on materials which can be used in the remediation of communicatively handicapped children.

The increasing emphasis on learning disabilities and speech and language impairments in recent years has left available qualified personnel with a bulging caseload. Because of the number of children manifesting language impairments and the limited number of speech pathologists and audiologists available to pre-school programs and the needs of the children were not being met. Thus, in recent years the development and training of communication aides has been implemented. Several pilot projects have been initiated to afford some tentative conclusions about the effective use of aides to assist speech clinicians in the public schools. During the 1967-68 school year, the state of Colorado undertook a pilot project on the use of supportive personnel in the public school speech and hearing programs (Alpiner, 1970). The majority of speech clinicians who participated in the program felt that the speech aides could be effective in the public schools. They felt that a communication aide was a person who could provide speech and language therapy

under the supervision of a certified speech pathologist. According to the program, the areas in which the aides proved most effective were articulation therapy and clerical activities. The speech clinician, however, reserved the right to decide whether he wants and/or needs an aide.

Early in 1967, the Executive Council of the American Speech and Hearing Association became increasingly aware of the need to evolve guidelines and policy statements with regard to the use of supportive personnel in speech pathology and audiology. As a result of this awareness guidelines were established for communication aide qualifications. The aide should have a high school education, be at least 18 years of age, have a sincere desire to work with children, and meet all requirements of the individual school district exclusive of the academic college degree. In addition, the communication aide should evidence an ability to understand and sympathize with the cultural and linguistic heritages of the client.

A county wide school system in Maryland was faced with caseloads impossible for the speech clinician to adequately serve the needs of the children. A communication aide program was developed as a necessary measure. The results of this program indicated the value of using communication aides and the enthusiastic support these people received from other staff, parents, and administrators also support the value of a trained communication aide in developing an effective therapy program (Braunstein, 1972).

According to the American Speech and Hearing Association (1970), the specific activities to be performed by the speech aide are:

1. Carry out speech and language screening.
2. Carry out prescriptive programming set forth by the supervising speech clinician for individual or groups of children.
3. Chart and graph children's progress.
4. Report progress to supervising clinician on a monthly basis.
5. Schedule parent conferences and/or meetings.
6. Keep daily log of specific problems.

7. Participate in inservice activities designated by the clinician and approved by the principal.
8. Assist in the preparation of instructional materials as needed.
9. Performing clerical duties such as: typing, preparing dittoes, stencils, recording and preparing therapy drills for themselves and for the clinician.

Those roles a communication aide is not expected to assume are:

1. Carry out diagnostic evaluations.
2. Discuss confidential information, test results, etc. without the supervising clinician being present.
3. Case selection.
4. Conduct parent conferences without the supervising clinician being present.
5. Decisions on programming.

The communication aide must bear in mind that hers is not only a technical duty but also includes such public relation activities as a liason between the clinician and the parents, the clinicians' program and the public, and the program and the faculty.

CHAPTER II

NORMAL DEVELOPMENT

A knowledge of developmental norms is essential in determining whether or not a child is performing normally in such aspects as speech and language development, social development, or motor development. In many instances, when a child cannot or will not respond to formalized testing, developmental norms can be used to "pinpoint" where a child is functioning age-wise. The following norms are given to aquaint you with normalcy in speech and language development, social development, motor development, and may be used in specifying a child's level of attainment.

SPEECH DEVELOPMENT BY AGES
(Wilson, 1970)

AGE	PARTS OF SPEECH	VOCABULARY	LENGTH RESPONSE
18 mos.	Nouns-50%	Uses 5-20 words and jargon	
24 mos.	Nouns-39%	Uses 272 words-still has jargon	2-word phrases
3 yrs.	Nouns-19%	Uses 600 words	4 words
4 yrs.	More articles and prepositions-Pronouns decrease-Nouns remain stable	Uses 1000-1500 words	5.5 words
5 yrs.		Uses 1500-2000	5.8 words

AGE	PARTS OF SPEECH	VOCABULARY	LENGTH RESPONSE
6 yrs.	Templin BOY GIRL 8900 8100 Recognition words Vocabulary	Uses 200-300 words	6.5 words
7 yrs.	13.5 12.9 --- multiply by 1000		
8 yrs.	18.3 18.0 Recognition exceeds expression		

SPEECH DEVELOPMENT BY AGES
(Continued)

AGE	INTELLIGIBILITY	AMOUNT SPEECH	CONSONANT SOUNDS TEMPLIN	POOLE
18 mos.	¼ understood	Tries to keep up with jargon	(1957) none	(1937) none
24 mos.	½ understood	Same as above	none	none
3 yrs.	Almost all understood		p, m, n, ng, f, h, w, y (f-3.5)	m, p, b, h, w
4 yrs.	Most sounds accurate	Talks much	b, d, g, k, r, s, sh ch	n, ng, t, d, k, g, y
5 yrs.	Most sounds accurate	Relates stories		f 5.5
6 yrs.	75% children have 90% accuracy		t, th, v, l	v, l, th, sh, zh
7 yrs.	75% have 90% accuracy		th, z, zh j, hw	s, z, th, r, hw s & r=boys-7.5 girls-6.5
8 yrs.	--	--	--	--

TABLE OF PHONEMIC DEVELOPMENT

Phonemes and Phoneme Blends
(Templin, 1957)

3 yrs.	Vowels: ĕ, ĭ, ĕ, ă, ŏ, ŭ, o͝o, o͞o, ô, o͡o, ä, ûr
	Dipthongs:
	u, a, i, ou, oi
	Consonants:
	m-, -m-, -m, n-, -n-, -ng-,-ng, p-, -p-, -p, t-, -t-, -t, k-, -k-, b-, -b-, d-, -d-, g-, -g-, f-, -f-, -f, h-, -h, -h-, w-, -w-
	Double consonant blends:
	-ngk
3.5 yrs.	Consonants:
	-s-, -z-, -r, -y-, -y
	Double-consonant blends:
	-rk, -ks, -mp, -pt, -rm, -mr, -nr, -pr, -kr, -br. -dr, -gr, sm
4 yrs.	Consonants:
	-k, -b, -d, -g, s-, sh-, -sh, -v-, j-, r-, -r-, l-, -l-
	Double-consonant blends:
	pl-, pr-, tr-, tw-, kl-, kr-, kw-, bl-, br-, dr-, gl-, sk-, sm-, sn-, sp-, st-, -lp, -rt, -ft, -lt, -fr
	Triple-consonant blends:
	-mpt, -mps
4.5 yrs.	Consonants:
	-s, -sh, ch-, -ch-, -ch
	Double-consonant blends:
	gr-, fr-, -lf
5 yrs.	Consonants:
	-j-
	Double-consonant blends:
	fl-, -rp, -lb, -rd, -rf, -rn, -shr
	Triple-consonant blends:
	str-, -br
6 yrs.	Consonants:
	-t-, th-, -th-,-th, v-, -v, -th-, -l
	Double-consonant blends:
	-lk, -rb, -rg, -rth, -nt, -nd, -thr, -pl, -kl, -bl, -gl, -fl, -sl
	Triple-consonant blends:
	skw-, -str, -rst, -ngkl, -nggl, -rj, -ntth, -rch
7 yrs.	Consonants:
	-th-, -th, z-, -z, -zh, zh-, -j
	Double-consonant blends:
	thr-, shr-, sl-, sw-, -lz, -zm, -lth, -sk, -st
	Triple-consonant blends:
	skr-, spl-, spr-, -skr, -kst, -jd
8 yrs.	Double-consonant blends:
	-kt, -tr, -sp

RECEPTIVE LANGUAGE DEVELOPMENT
(Lehman, 1963)

1 month	Heedful of sounds; ceases activity, reflex smiling to tactile and kinesthetic stimulation and mother's voice.
2 months	Attends readily to speaking voice. Aware of his own sounds.
3. months	Aware of many visual and auditory stimuli in environment. Indicates anticipation of feeding upon seeing bottle.
4 months	Motor response to outstretched arms: raises arms to be picked up. Responds to noise and voice by turning. Vocalizes social stimulus.
5 months	In absence of visual contact responds to voice by head turning. Responds to angry tone by crying. Responds to pleasant speech by smiling and laughing. Indicates displeasure on withdrawal of object.
6 months	Distinguishes between friendly and angry talk. Listens to his own voice.
7 months	Comprehends parental gestures. Pays attention to speech of family. Pays attention to many sights or sounds in environment. Smiles at onlookers. Listens to his own private vocalizations.
8 months	Adjusts to words by modification of behavior; recognizes others Listens to greetings and other familiar phrases. Eyes and ears alert to all stimuli in the immediate environment.
9 months	Rudimentory comprehension of symbolic gestures and intonation patterns. Action response to verbal request (opens mouth when asked). Comprehends no-no, not his name.
10 months	Pays attention to face of speaker. Comprehends bye-bye; waves bye. Action response to verbal request: "Where's Baby's shoe?", shakes head yes, no to some questions.
11 months	Differentiates family and strangers. Understands many action words.
12 months	Understands phrase-wholes, simple grammatical patterns. Responds in action to commands. Enjoys rhymes and simple songs. Understands arrival and departure signals. Perceives emotions in others.
15 months	Points to and pats pictures in a book.
18 months	Comprehends simple instructions. Selectively looks at pictures in books.
21 months	Recognizes 2 pictures.
22 months	Can point to 5 parts of a doll.
24 months	Can identify 5 or more pictures; Identifies 4 parts of own body; will listen as another names pictures for him.

27 months	Can identify 6 pictures by pointing.
30 months	Identifies 7 pictures by name. Identifies 4 objects by use. 5-10 minute attention span for a story. Understand concept of the number one.
36 months	Can obey a 2-stage command. Listens to nursery rhymes and 20 minute story. Memorizes story order and identifies action in pictures. Often watches T.V., especially cartoons.
42 months	Can obey 3-stage command.
48 months	Obeys 4-stage command. Understands and interprets information from T.V. programs.
5 years	Receives information from life situations on T.V.
6 years	Knows right from left. Can state whether it is morning or afternoon.

EXPRESSIVE LANGUAGE DEVELOPMENT SCALE
(Lehman, 1963; Bangs, 1968)

1 month	Differential cries for discomfort, pain and hunger; more variety in noncrying sounds; grunts, gurgles, sighs; front vowels, K L G, and glottal catch.
2 months	Makes several different vocalizations including cooing; makes one syllable.
3 months	Babbling begins; doubled syllables; smiling and vocalization in response to human speech and feelings of pleasure.
4 months	Coos, chuckles,gurgles, laughs, self initiated sound play; responds vocally to social stimulation; smiles on mere sight of face.
5 months	Syllable repetition; beginning of socialized vocalization, vocal expression of eagerness.
6 months	Vocalizes pleasure; several well-defined syllables; various combinations of vowel sounds; says mama or dada in babbling but not in relation to parents.
7 months	Doubled syllables; singing tones; vocalizes satisfaction and upon seeing bottle; second period of imitation begins.
8 months	Imitates sounds - cough, clicking of tongue; interjectional vocalization.

9 months	Babbles to others as well as to self; more imitation; one or two "words" in articulate vocabulary.
10 months	Rudimentary imitation of sounds of others; vocalization during play and to toys.
11 months	One word vocabulary, beside "mama".
12 months	Two words; vocalizes into mirror; responds to music.
15 months	4-7 words; jargon; vocalizes with gesture;names one object; says "ta-ta" on giving or receiving, the equivalent of "thank-you". Knows names of most objects he uses. Names few people.
18 months	10-20 words; names 1 to 3 pictures; 50 percent nouns; sentence length - 1.2 words; peak of jargon; some echolalia; asks for two things by name; the jargon used is inflected flow of connected sound that seems like sentences; indicates wet pants.
21 months	20 words; combines 2 words; more words than jargon.
22 months	2 concepts in one sentence.
24 months	272 words; sentence=1.8 words; combines 3 or 4 words; pronouns; names familiar objects; verbalizes immediate experiences; soliloquizes; refers to self by name; says "no"; nouns=1/3; discards jargon; begins to claim "mine"; points to picture of a car, dog, clock; points to his nose, eyes, hair; waves bye-bye.
27 months	Names 4 objects correctly.
30 months	500 words; nouns - ¼; verbs - ¼; sentence=3.1 words; past tense; plurals; names 5 pictures; repeats; gives full name and refers to self by pronoun.
36 months	900 words; sentence - 3.4 words; m, n, p, h, w mastered; names 8 pictures - states action, enumerates several objects; questions; tells own sex; says things like, "see the baby" when sees self in the mirror; talks about immediate experiences; uses a before many responses; can repeat two digits; shortens or telescopes words or phrases; common expression, "I did"; obeys 3 prepositions; names 16 pictures.
42 months	1,200 words; nouns - 1/5; verbs - ¼; sentence - 4.3 words; supplies last word of line; answers 2 comprehension question; spontaneously goes through picture cards.
48 months	1,500 words; sentence=4.4 words; b, k, g, f mastered; long, detailed conversations; tells story with mixture of real and unreal; asks for detailed explanations; answers 13 agent-action pictures; parts of speech in stable relationship; repeats 12-13 syllable sentences in 1 of 3 trials.

54 months	1,900 words; sentences - 4.6 words; answers 14 action-agent and 2 complex comprehension questions; asks meaning of words; tells long story accurately; describes items and action taking place in a picture; y and d mastered.
66 months	2,300 words; sentences - 5.1 words.
72 months	2,500 words; l, r, t, sh, dr, kr, kl, bl, gl.
78 months	v, th, j, s, z, tr, st, sl, sw, sp.

SOCIAL DEVELOPMENT
(Gesell et.al, 1940)

Birth to 2 months	Stops crying when picked up. Sight of mother may stop crying. Visual stimulus may cause "non social" smile (especially a human face).
2 to 4 months	Responds to adults making sounds by moving mouth. Enjoys mild rough-housing. Responds to people with sounds.
4 to 6 months	Smiles readily at family members. Less eager with strangers. Cries if left alone by anyone. Desires company. Recognizes bedtime as end of companionship and may resist. Laughs while playing games with adults. Enjoys being handled, bounced on knee. Enjoys sitting up - new social orientation. Sobers at the sight of stranger.
6 to 8 months	First truly social attachment is to mother who is recognized at 6 months. Will cry if certain individual leaves him rather than just anyone. Stranger anxiety in 50% of infants at 6 months. (Re-veals fact that child knows what is familiar and has an emotional attachment). Holds out arms to be picked up. Will ignore other infants his age. Long separation from mother from this age on can have serious results emotionally. Enjoys looking around and exploring with new abilities.
8 to 10 months	Responsive to parents' moods and emotions. Needs to see world and others to maintain his self-identity. Joins in with adult laughter. Will cough, sniff and hit things to get attention.

	Social games: pass toy back and forth with adults, also finding things that have been hidden, finger and toe games, being sung or talked to, being swung under arms, being chased by mock-ferocious adult, running away at bath or bed time. (Will laugh while hiding and not understand the sound gives him away). Frustrated when something is taken away from him. May become overexcited so that laughing and crying are in close interplay.
10 to 12 months	Recognizes self in mirror. Can follow a command. Enjoys hugging and kissing. Will fight with other children his own age over playthings rather than playing with them. Has established routine of everyday life. Likes to have people around. Will copy another's activities. Will throw things down so someone will retrieve them and return them to him. Is inhibited by "no-no". Much socializing. Will repeat actions that got a laugh. Capable of fear, anger, affection, jealousy, anxiety, sympathy. Cooperates in dressing. Elicits attention vocally or other ways. Can adjust to emotions of others. Cries when mother leaves and may cry harder if comforted by a stranger. Recognized and is suspicious of Doctor.
First Year	Interested in exploring his environment. Still very mother oriented. Does respond to other people though he may have periods of shyness or fear of strangers. Uneasy with people he doesn't like. Shows anger and happiness. Still very self-centered, he is also very individualistic. His brief interaction with another child usually consists of poking playfully. He is beginning to obtain solutions by trial and error. The toddler can abandon an activity midway without feeling frustrated.
Second Year	The child has to learn to conform to his parents' expectations, i.e. there are things he can't touch, taste, hold or take apart, places he can't go, etc. The age sometimes called the "Terrible Twos" is derived from the tantrums that may occur.

He is into everything and is rarely still.
He is easily distracted. The child's interest is in the present. He has no capacity to wait.
Independence comes in spurts.
Thunder and other loud noises may frighten him as well as large unfamiliar objects.
He is beginning to reach out toward other children even though he doesn't know how to play with them. He still is very self-centered and cannot be left alone with others his own age because they might hit and push each other.
Some formal games may begin to interest him such as ring around a rosy and London Bridge.
Negativism is beginning to develop and he is learning to assert himself by insisting that things be part of development and unless it is inflated into a major issue between parent and child is soon assimilated.

Third Year

The child is beginning to learn to share and to understand that other people's property right must be considered.
He is beginning to be able to accept limits and restraints.
He is very curious.
He is beginning to ask for what he wants rather than just taking it.
He is becoming a little less dependent on Mom and is beginning to handle his own quarrels and disputs.
He may have a special friend (boy or girl) with whom he plays.
His father is becoming increasingly important to him.
Three year olds need a pattern to follow. Therefore, he is imitative. Emotionally the child is still restless. He is easily discouraged and encouraged.
Sympathy, aggression, and leadership begin to emerge.
Learning to understand his environment and to comply with many of its demands.
Likes to be close to his mother, but his father is becoming increasingly important to him.
Often negative.

3½ Years

Likes to help around the house.
Wants adult approval.
Imitative in language, manners, and habits.
Shows fatigue by being irritable or restless.
Simple clear routines, and limited choices allow him to function in the very best.

Four Years

Gradually learning what is acceptable behavior and what is not.
More self-reliant, well aware of himself as a person.
Responds best when treated as an individual.
Fairly efficient at dressing himself.
Capable of eating most foods without help.
Friends now becoming more interesting to him than adults.

4½ Years	Best friend apt to be of same sex. Tattle a great deal. Name calling and quarreling may be expected to result from play with others.
Five Years	Stable, good balance between self-sufficiency and socialability. Home centered. Beginning to be capable of self-criticism. Eager and able to carry some responsibility. All activity has pre-defined direction. Uses language well and enjoys dramatic plays. Can wash, dress, eat, and attend to bathroom needs by himself.
5½ Years	Individual and lasting traits beginning to be apparent. Interested in group activity. This is the period of conforming. He wants to fit into his environment and seldom rebels against it.
Six Years	Self-assertive,aggressive, wants to be first, less cooperative than at five. Keenly competitive. Boastful, yet quiet. Inconsistent in level of maturity evidenced by regression when tired. often less mature at home than with outsiders. Has difficulty making decisions. Best friend always the same sex. Wilts under criticism and disapproval and becomes discouraged easily. Cautious crossing streets through traffic. Tag is the greatest kind of game to him. Proud of his masculinity.

MOTOR DEVELOPMENT
(Gesell et.al, 1940)

ONE MONTH

-whole action system with more muscle tonus and more organization with the tonic neck reflex posture predominating.

-rolls or wriggles to one side.

-in positioned sitting-complete or marked head lag or sag and head droops in ventral suspension.

-hands usually fisted, and clenches object (rattle) on contact.

-most prefer the supine position.

-when in the prone position-lifts head momentarily and arm supporting reflex seen. Also rotates head, and predominately turns it to one side.

-no rigid schedule-staple and significant behavior of sleeping, crying, fussing, playing and sense perceiving.

-most common reflexes seen Moro, Startle, Grasp, Rooting and Crawling reflexes.

-quasi-dormat.

-development is usually proximal distal-reaches with stiff whole arm and then moves to finer motor coordination.

-development is usually cephalocaudal-head to foot development.

TWO MONTHS:

-Sit: head is predominant-bobbingly erect.

-Prone: head compensates during ventral suspension, and when his head is in a mid-position, he lifts his head recurrently.

-retains rattle briefly.

-Labyrinthine righting reflex appears. Also during the fetal stage there is trunk flexion and oral sensitivity.

THREE MONTHS:

-Supine: head predominates to a half side position due to the limitation of the tonic neck reflex.

-midposition, the head and symmetrical position are seen.

-hands open or loosely closed. Infant can hold a rattle actively and glances at it in his hand.

-Sit: head is set forward and bobs.

-Stand: can hold a small fraction of his weight and briefly lifts foot.

-Prone: head sustained on forearms, hip low and legs flexed.

-pull up reactions in the arm (reflex) and the infant can turn from back to stomach.

-trunk extension.

FOUR MONTHS:

-likes propped up sitting position leaning forward-head is upright and steady and comes more frequently to midline.

-while in supine position-head rotates with increasing freedom and fingers scratch and clutch and arms are active.

-regards rattle in hand and brings his free hand to the midline and puts the dangling ring in mouth.

-while in prone position-legs are extended or semi extended.

-kicks vigorously, turns head actively from side to side, and rolls to one side.

-hand has loosened fingers and are more nimble and more busy; clutches rather than perhends and puts objects in his mouth.

-when held in supported standing position-extends legs recurrently.

-motor response to out stretched arms: raises arms to be picked up.

-symmetrical postures predominant in the supine position as the tonic neck reflex looses its way.

FIVE MONTHS:

-Sit: head erect and steady.

-Prone: arms extended. Holds cube first, then regards it.

-grasps rattle and dangling ring near hand only and grasps rattle and bell with two hand approach, usually with the palm of the hand.

SIX MONTHS:

-Sit: in chair, infant's trunk is erect.

-Supine:

-lifts legs high in extension and rolls to prone position.

-approaches dangling ring, rattle, cube and bell and grasps them usually with a palmarwise grasp and retains them. Infant retains rattle and prehensory pursuit of it exists if it is dropped.

-with many cubes, infant holds one and approaches another. He also brings the cube or bell to his mouth.

-Moro reflex terminates.

-voluntary creeping appears.

-swimming reflex disappears.

-voluntary crawling appears as crawling reflex disappears.

SEVEN MONTHS:

-most now prefer prone position.

-"almost age:" almost pivot and take on own weight when held upright.

-Sits: brieftly leans forward on hands and is erect momentarily. Infant likes to sit in high chair, slight support from arms of chair.

-Stands: when held, bounces up and down actively and supports large fraction of weight.

-Supine: lifts head and lifts legs high and can grasp feet and roll to prone.

-halfway stage to full attainment of upright posture.

-active manipulatory exploration of physical world, expecially with hands.

-learned to balance head, and is sedentary.

-beginning to use thumb more adeptly.

EIGHT MONTHS:

-Stand: maintains weight brieftly with hands held.

-Prone: pivots. Radical raking with hands to reach pellet.

-Cube: grasps second cube, retains the second cube as the third cube is presented. Infant holds second cube prolongedly.

-Ring String: secures ring.

NINE MONTHS:

-Sit: infant can sit for 10 minutes steadily. He leans forward and then re-erects.

-Stand: holds rail and is able to support full weight.
-supporting reflex seen in legs.
-Palmar and plantor grasp reflex disappear.
-righting reflexes of head and body disappear.

-Cube: radial digital grasp and grasps third cube.

-Pellet: responds with a sissors grasp.

-Ring String: manipulates string.

-Pellet and Bottle: approaches bottle first.

TEN MONTHS:

-Sit: sits indefinitely and equalibrium is maintained. Can turn to side, lean at various angles and recover balance. Infant can shift from sitting to prone and prone sitting posture.

-Prone: creeps on hands and knees. Extends commands to his legs and feet to his forefingers and thumbs with which he pokes and plucks, especially with the forefinger and thumb in pincer-like opposition. Also while in the prone position the infant creeps on his hands and knees.

-uses hands for more skillful locomotion and manipulation.

-stands and pulls self to feet and cruises along while holding onto furniture as he stands, with legs sustaining his entire weight.

-increased faculty in head and trunk movement.

-bangs two blocks together and shakes rattle in the direction he intends, although he has a crude, prehensory release which is clumsy and exaggerated.

-supine position is scarcely tolerated except during sleep.

ELEVEN MONTHS:

-Sit: can pivot now.

-Stand: (at rail) lifts, replaces foot and cruises at rail.

-Walks: needs two hands held.

-Bell: grasps by top of handle.

-Cube and Cup: removes cube from cup.

-Pellet in Bottle: points at pellet through glass.

-Pellet: pincer grasp.

ONE YEAR:

-the one year old is on the brink of many abilities. He can creep, pull himself to a standing position unassisted, release a ball with a throwing thrust and has fine prehension of deftness and preciseness

and has almost acquired the capacity of voluntary release.

-he cruises sideways as he holds to support.

-walks without support sometimes, although on occasion he may need one hand.

-can arise from back lying position to a standing position-independent locomotion.

-has already achieved an upright posture and will step off low objects such as stairs.

-infant moves in a vertical plane and he can stand alone without assistance.

-manipulates several cubes one by one in a serial manner.

-a finer coordination in eating and in play activities if observed. Infant tries tower of two but fails, tries to insert pellet into bottle, releases and fails and dangles ring by string.

FIFTEEN MONTHS:

-gross motor drive is strong, ceaselessly active.

-wants to hold and carry something in each hand.

-discards creeping or toddling.

-builds a tower of two.

-walks alone: takes a few steps, starts, stops, and falls by collasping Child has postural control of head, hands and trunk.

-Stairs: creeps up.

-Pellets: places in bottle and can put six cubes in and out of a cup.

-scribbles.

EIGHTEEN MONTHS:

-gains in body control-the greatest difference between one and eighteen months is postural. Child of eighteen months has fully attained upright posture.

-gross motor activity: engrossed in runabout activities. Child has acquired gain in practical command of legs and hurries with a stiff, propulsive, flat gait that resembles a run. He can also throw a ball a couple of feet.

-with help (one handheld) child can walk upstairs and descend stairs unassisted by bump method or creeps down backwards.

-can push a chair around and pull a wheeled toy as well as seat self on child's chair and climb onto adult chair.

-can build a tower of two and repeated trials to build a tower of three.

-can hold cube in one hand while grasps for another and likes to carry objects from one place to another. Child has a unilateral as well as bilateral approach in manipulation.

-squats a great deal and walks but seldom falls.

-puts pellets into bottle and dumps it out.

-scribbles spontaneously and makes strokes imitatively, especially using a vertical stroke. Child can't cut with scissors.

TWENTY-ONE MONTHS:

-Walks: squats in play

-Stairs: walks down (hand held) and walks up holding on to rail.

-Cubes: tower of 5-6 and also imitates pulling train.

-kicks large ball.

TWO YEARS:

decidedly motor minded;enjoys gross motor activities and delight in rough tumble play. Loves to romp, flee and pursue, fill and empty, put in and put out, tear apart and fit together etc. . . Child prefers action toys.

-has more fully achieved erect posture with somewhat of a foreward lean.

-a spread in stance and residual stagger in his steps.

-more flexive at knees and ankles and has better balance and can hasten steps without loosing equilibrium. True runnning appears with little falling.

-no longer needs assistance in walking and goes up and down stairs but shifts to "marking time" at each tread.

-can jump down from one tread without help; one foot leading the other as he leaps.

-can kick a ball and throw a ball 4-5 feet.

-still manipulates more freely with one hand and alternates from one hand to the other and can also fit one tying into another.

-walking rhythm stabilizes and becomes even and child can walk sideward and backward. To pick up, child half bends at the waist as well as at the knees; stooping.

-holds glass of milk securely and holds spoon supinely by overhand grasp.

-turns book pages one by one and builds tower of 6-7 cubes and lines up 5 or more for choo-choo train.

-can snip and string beads with needle and in drawing, child imitates V stroke and circular stroke.

TWO AND A HALF YEARS: "PARADOXICAL AGE."

-peculiar limitations of his action system account for his characteristic inability to modulate his behavior; fluctuations caused by narrowness of base.

-Walks: on tiptoe.

-Jumps: with both feet.

-Stand: tries to stand on one foot.

-Cubes: tower of eight.

-Drawing; two or more strokes for cross. Imitates V and H strokes.

-runs ahead or lags behind on walks.

-pushes toy with good steering and can carry breakable objects.

-in grasping with fingers he over grasps too hard and over reaches-opens fingers too wide.

THREE YEARS:

-massive muscles dominate to still afford him pleasure. Child still enjoys gross motor activities, but less exclusively so. A change in motor movement has taken place in that there is an increased capacity to inhibit and delimit movement.

-more sure nimbled on his feet, runs more smoothly; turns sharper corners and negotiates sudden stops. Child goes upstairs unaided alternating his feet, jumps down with both feet together and jumps up. He has an improved sense of balance - stands on one foot momentarily, walk a line heel to toes ten feet long and will walk a balance beam for short distances.

-less sway and toddle in gait and much nearer to mastery of upright position or posture. Child can peddle tricycle and can hop from 2-3 steps on preferred foot and throw a ball 10 feet.

-builds a tower of 9-10, imitates bridges and copies a circle and imitates a cross.

THREE AND A HALF YEARS:

-physical self is insecure and uncoordinated: bumbling age. Child stumbles or falls over near by objects, stands on one foot for two seconds, and builds bridges from model.

-hand tremor when fine coordination required.

FOUR YEARS:

-motor drive is high and there is less totality in bodily responses. Child finds pleasure in motor stunts and well directed aim. He also tends to go out of bounds, both with muscle and mind.

-child is a more facile runner and runs with good form, maintains one legged equilibrium longer and can walk a balance beam - likes activities requiring good balance.

-child can skip, skillfully jump, can walk a line around a periphery of a circle, pace and race up and down stairs and ride fast on a tricycle.

-leg-arm coordination is apparent and he can throw a ball overhand. Child can also perform a running broad jump and standing broad jump.

FIVE YEARS: "Little Man"

-more agile and is more controlled and matured in general bodily activity. Posture is more symmetrical, although he may change posture while playing in one location: standing, sitting and squatting.

-well developed sense of equilibrium; can stand on one foot and balance himself on his toes for several seconds.

-five can skip smoothly on alternate feet and jump as well, likes to climb fences, broad jump from 2-3 feet, hops 50 feet in about 11 seconds, catch large play ground ball bounced to him, using his hands more than his arms in catching, but frequently misses. Child can also alternate feet descending stairs and rides tricycle and pushes cart or wagon. His favorite toys include roller skates and a sled.

-dawdles less and shows some interest and competence in washing dishes and can brush teeth, comb hair and wash face. He also keeps better time to music when he dances.

-ease and economy is present in finger coordinations and he has a greater command and precision of tools.

SIX YEARS:

-developed agility and strength. Movement is more facile, easy and economical. Movement of head, trunk and arms, is smoothly synchronized. Child is constantly in motion and likes active games. He likes to wrestle, creep around floor, play tag and hide and go seek, and likes to push or pull large blocks of furniture around. He also likes to skate and do stunts on bars, swing, swim and dig. Boys seem to like war games or cops and robbers.

-he has gained in speed and readiness of arm movement. He can kick a soccer ball and bounce it and is quite good at catching and throwing with proper weight shift and shape. He can run well as evidenced by this arm and leg action. Child can jump down with one foot landing on his toes only. Jumping is either vertical or horizontal with take offs of two feet. He can also stand on each foot alternately, jump over a rope and is good at running broad jump.

-has the urge for a bicycle based on need and desire for locomotor leg exercises and practice at body balancing.

-child knows right and left, aligns cubes to build a virtually straight tower and can't tie his shoe laces.

SEVEN YEARS:

-seven is very active and quanity is the rule in what ever seven does. He practices things he likes to do: roller skate, jump rope and hopscotch. He can walk two inch wide balance beam, can hop and jump accurately into small squares, throw ball at target, run swiftly, and surely with weight on ball of foot and crouch on tip toes.

-seven is more cautious and can be extremely quiet. Boys take a beginning interest in learning to bat and pitch and they love to shoot paper airplanes. One foot balancing without vision becomes possible and there is a real desire for a bicycle.

-seven can tie a bow knot, comb and brush his hair, use a table knife for spreading and taps the floor alternately with his foot.

CHAPTER III

SPEECH, HEARING AND LANGUAGE PROBLEMS

Speech, hearing and language problems may be divided into two very broad categories, functional and organic, as far as cause is concerned. Although the term functional is very vague, those disorders caused by emotional disturbances, environmental conditions, or poor teaching methods are usually reserved for this category (Van Riper, 1963). The term organic is usually reserved for disorders caused by such problems as cleft palate, hearing loss, or cerebral palsy. It may be noted that some disorders, such as articulation, may have either a functional or organic cause.

Children's Speech, Hearing and Language Problems

Articulation

Articulation disorders are classified as: 1) substitution, e.g. "fum" for "thumb"; 2) omission, e.g. "bu" for "bus"; 3) distortion. Since articulation skills are developmental, caution must be used in classifying a preschool child, who displays misarticulations, as speech impaired.

Articulation errors of Spanish speaking children. According to Lopez (1971), "many children with Spanish-language backgrounds have typical speech errors of substituting one speech sound for another". Some of the more typical substitution errors are: (Lopez, 1971)

1. "s", "f" or "t" for voiceless "th"; the "t" being most frequently substituted. "z", "u", "d" for voiced "th"; "d" the most frequent substitute.
2. "b" (or a sound between "b" and "v") for "v".

3. The "sh" and "ch" sounds are often interchanged, such as "choes" for "shoes" and "shop" for "chop".

4. "w" is usually substituted for "wh".

5. "g" is sometimes inserted following the "ng", for example, ringging for ringing.

6. The short ĭ and long ē are often interchanged, although the ē is more frequently substituted for the ĭ; e.g. "ees" for "is".

7. The short ŭ often sounds like the short ŏ, e.g. "mother" sounds like "mahther".

8. The "o͝o" often sounds like "o͞o", e.g. "co͝ok" sounds like "co͞ok".

9. The short ă often sounds like the short "ŏ", e.g. "bang" sounds like "bong".

10. The short "ĕ" often sounds like the short "ă", e.g. "set" sounds like "sat".

11. Voiceless Spanish sounds are often substituted for their English "partners", e.g. "f" for "o", when the sound is in the final position in the word.

Pronunciation in the Negro dialect. It has been stated by Fasold and Wolfram (1972) that "Standard English words ending in a consonant cluster or blend often have the final cluster absent in Negro dialect". Therefore, Negro children would tend to pronounce "test" as "tes" or "desk" as "des." This same principle applies if the word ends in "ed". For example, "cook" would tend to be pronounced as "cook" and "shoved" would tend to be pronounced as "shove". Plural formations are also affected. According to Fasold and Wolfram (1972), "in Negro dialect words ending in /s/ plus /p/, /t/ or /k/ add the -es plural instead of the /s/ plural." Hence mask would be pluralized as masses, toast as tosses, wasp as wasses, pest as pesses.

Other Characteristics. Changes are also commonly made in various consonant and vowel sounds. The changes are as follows:

1. "d" for voiced "th" in initial position; "t" for voiceless "th" in initial position; "u" for voiced "th" in medial position; "f" for voiceless "th" in medial position; when "th" is followed by a

nasal sound ("m" or "n") it may be pronounced as "t"; the "th" may be omitted altogether, e.g. "fah" for "father". In final position "f" may be substituted for voiceless "th" and "v" substituted for voiced "th". Or, when preceded by a nasalized sound, the "th" may be omitted e.g. "month" pronounced as "mont" or "mon".

2. "r" and "l", in final position, may be pronounced "uh".

3. devoicing sounds at the end of the word is common, e.g. "pick" for "pig".

4. The "ing" suffix is often dropped.

5. Words such as "ride" or "toy" may be pronounced as "rahd" or "toah".

Stuttering (Nonfluencies)

It must be remembered that very young children who repeat sounds or syllables are not necessarily stutterers. Some non-fluency in very young children is normal.

Nature of stuttering. From every point of view, stuttered speech is characterized by hesitancies, blocks, repetitions, and/or prolongations of sounds in excess of normal.

Classification. Stuttering is usually classified by two broad labels: Primary and Secondary. Primary stuttering is speech characterized by repetitions, prolongations, and/or hesitations that take place without apparent awareness or anxiety, and without evidence of special effort or struggle behavior on the part of the child. Van Riper (1963) adds another criteria for primary stuttering. He reserves the term for the nonfluencies of speech which appear under conditions when most children speak with comparative fluency. According to Van Riper, if a child speaks with nonfluencies so often that the speech calls attention to itself and significantly interferes with communication, then the child is a primary stutterer rather than a normally fluent child.

Secondary stuttering is speech characterized by the occurrence of more than normal repetitions, prolongation, and/or hesitation associated with

some form of struggle behavior or accessory, spasmic activity. From the point of view of the speaker, awareness, apprehension, and anxiety are associated either with specific speech situations or with speaking in general.

Cleft Lip and Palate

A cleft of the lip or palate is caused by a failure of fusion of the lip and/or palate during the first three months of fetal life. This failure may affect the lip only usually from the red border to the nostril. The four principal types of palatal clefts are: 1) cleft of the soft palate only; 2) cleft of the soft and hard palate; 3) cleft of the soft and hard palate and one side of the premaxilla; and 4) cleft of the soft and hard palate and of both sides of the premaxilla.

Surgery on the lip is usually accomplished two to four weeks after birth; palatal surgery within the first three years of the child's life. A cleft of the lip only usually does not affect the production of speech to any great extent. However, palatal clefts usually contribute to a number of associated problems. These problems include articulation, nasal voice quality, language, dental, and emotional. In addition, cleft palate children are particularly susceptible to upper respiratory and middle ear infections.

Most states sponsor a cleft palate team which cleft palate children may be referred to for diagnosis and recommendations for treatment. This team usually consists of a pediatrician, orthodontist, prosthodontist, oral-maxillary surgeon, psychologist, social worker, nurse, educational specialist, speech pathologist, and audiologist.

Cerebral Palsy

Cerebral palsy is a neuromuscular disorder, resulting from some type of neurological impairment, that is crippling in terms of motor function. Conditions contributing to cerebral palsy may occur before birth, during the birth

process, or after birth. The three major types of cerebral palsy are: 1) spastic; 2) athetoid; and 3) ataxic.

Overtly, cerebral palsy is a motor problem. However, there are many associated problems which may be anticipated. These may include: 1) mental retardation; 2) hearing impairment; 3) visual, auditory, or tactual perception problems; 4) articulation disorders; 5) learning disorders; 6) emotional problems; and 7) language problems.

Voice

Voice problems are usually described in terms of pitch, loudness, and quality. Voice problems, with the exception of the nasal voice of the cleft palate child, are rather rare in young children. One of the contributing factors to voice problems in young children are vocal nodules. Vocal nodules are small, pinpoint size, growths which appear on the anterior third of the vocal cord and are often caused by misuse of the voice; children screaming and yelling.

Language

Language problems are an all encompassing concept. Children with language problems may have difficulty with expressive language. In other words, their pronunciation, articulation, word variety, sentence length, and use of grammatical and syntactical structures may be faulty. They may have difficulty understanding and processing any form of language input whether it be verbal, visual, or tactual. Therefore, there may be a breakdown in the child's comprehension of various forms of language input.

Hearing Impairment

Children with hearing impairment are classified as either deaf or hard-of-hearing.

Deaf. The deaf are those for whom the sense of hearing is so impaired as to have precluded normal acquisition of language. There are two groups of deaf children: 1) the conginitally deaf--those born deaf; and 2) the adventitiously deaf--those born with hearing sufficient for the acquisition of speech and language but later, as a result of illness or accident, suffered severe hearing impairment.

Hard-of-hearing. The hard-of-hearing are those whose hearing acuity is defective, but functional with or without a hearing aid. Hard-of-hearing children learn to speak essentially through the avenue of hearing. However, we would anticipate that the development of speech and language would be delayed. We would also expect the hard-of-hearing child to have faulty articulation and perhaps unusual voice quality.

CHAPTER IV

ADMINISTRATIVE PROCEDURES

Every program should have a system in which records are kept for all clients. The records should be individualized and should include: (1) a release form, (2) a case history, (3) medical records, (4) any previous testing data, (5) records of previous therapy, (6) the client's schedule (school and therapy), (7) a record of therapy attendence, (8) a daily log, and (9) graphs and charts recording progress.

The records should be constantly brought up to date so that qualified personnel may have a readily available source of the child's position in the therapy schema. These records must be considered highly confidential and must not be removed from the office or clinical area. Discussion of the client should be limited to only those who are involved with the client and consideration should be given to type and amount of information given to client, or client's relatives. It is recommended that the client's folder not be made available to client's parents. If the communication aide is unsure as to who should and should not have access to a client's folder, she should check with the master clinician.

The files should enable the involved personnel to get a quick view of each child. In order to provide a clear picture of the present problem the following information is suggested for each client's file.

Release form. Many clinics or agencies providing speech therapy routinely request the client or his parents (or guardian) sign a form

which gives the clinicians permission to make certain uses of the information obtained from or about them. If a client's file doesn't contain one of these release forms, the communication aide should check with the head clinician to see if one should be obtained. (See page 40 for sample copy.)

Case History. The primary goal of a case history is to compile the data necessary for a properly balanced understanding of the current situation. One of the most important pieces of information a case history can provide is how the parents (or the client) views his problem. Ask the informant what he thinks the problem is, and try to record it in his own words.

Ideally a case history should be done impartially, precisely, and reliably. "questions should be phrased so that the influence of suggestion will not prejudice the answer." (Van Riper, 1963, p.491). When taking a case history be careful to record the person's actual answers rather than your interpretation of them. The recording of a case history should be done immediately. For some of the questions (for example, the "statement of the problem"), the communication aide may want to take down the respones in shorthand or on a tape recorder, and then copy it on the case history form in order to insure legibility and coherency. (See page 41 for sample short case history form).

Medical Records. While most of the information is usually obtained from the client or his parents, it is also necessary to obtain information from other sources. Medical records are an important part of the client's file.

If a client's folder doesn't have a medical record the communication

aide should check with the head clinician about obtaining one. The communication aide can get the name of the family doctor from the client or his parents and request a medical history. If the family doesn't have a doctor the clinic or agency may be able to refer the client to one.

Much of the medical history (physical development - i.e crawling, walking, etc.; illnessess, childhood diseases, etc.) can be provided by the parents and is usually included in the case history.

From the medical reports it may be possible to see what caused the problem, and more important, what may be the reason for the problem's continuance. The medical reports may contain doctors' recommendations for further medical action. The communication aide should check to make sure all recommendations have been followed up.

Include Information from Previous Testing.

This will help you to keep track of the child's academic and/or speech development. It would be very helpful to acquaint yourself with the way different scores on different tests are interpreted -- for example, The Utah Test of Language Development gives you a score in terms of the "language : of the child; the ITPA gives a psycholinguistic age, and a language age for every subtests area (gives a good idea of which specific areas are weak); the Peabody has tables for several interpretations of the basic score, including IQ and percentile scores. It is important to have an idea of where a child stands in relation to the norms for his age group - although these are not to be considered as strict regulations for "normalcy", they are helpful as quidelines for therapy.

In some cases it would be necessary to see what kinds of test have been administered. It is impossible that an articulation or language problem

caused by a hearing loss may have been misdiagnosed. Problems may also be related to emotional contexts, a low IQ, bilingualism, etc. If it is felt there is a need for more extensive testing of a child in therapy, the speech clinician should be consulted.

The diagnosis and evaluation of any child should be a constantly on going process, thus it may be necessary to retest the child if the most recent test was administered a years or more ago. Since the speech clinician will be the one to administer most tests, again relate your suggestions to this person, and the clinician will decide if retesting will be done.

If any recommendations as to therapy or further testing were made, have these recommendations been carried out? If not, why not? Again, you should consult the speech clinician as to what action to take.

The major point is to re-evaluate the original diagnostic teaching and allow the child to progress throughout teaching and other environmental influences.

Include Information on Any Previous Therapy

In checking the child's records, you may find that he has already been exposed to therapy. Notice should be taken of type of therapy -- language program, articulation therapy, etc. Number and length of sessions should also be noted. Recommendations from the diagnostic evaluations should be definitely considered when planning therapy. Progress from previous therapy should also be considered. Was the progress enough to judge that therapy was effective? If not, this may indicate a need for a chance in the therapeutic approach. Although it is important for the aide to be familiar with this type of information, in the last analysis it is the speech clinician's responsibility to make the decisions as to what steps are to be taken in the therapy program.

Include a Class Schedule

Therapy sessions should be scheduled within the time frames of when the child is conveniently available. Lunch, playground, field trips, etc. are all events that should be taken into consideration. It would be wise to take into account holidays and any type of programs that may interfere with the routine when planning your schedule. The objectives for the anticipated number of sessions should be flexible enough to be adjusted for any conflict that may arise.

Attendance Reports

Records should be kept in regard to the child's attendance. This allows the speech clinician or those persons interested, a quick and accurate glance at the child's attendance. Attendance, or non-attendance, may indicate a child's enthusiasm for therapy. Non-attendance may indicate severe sickness, parental negativism to any other number of reasons.

The report should include a calendar-type sheet. Days of the week should be listed Monday through Friday. A space should be provided for the child to sign his name or initial. This could be done if the child is old enough. A space can also be provided for the clinician or aide to sign their name. An extra space may also be provided for the clinician or aide to record particular comments regarding the child's attendance. These may include comments on tardiness, sickness, or whatever.

Daily Log or Clinical Action Page

A sheet should be provided for the clinician or aide to record any correspondance or personal contacts made with the individual.

The daily log is a day to day or week to week record of therapy and how the child reacted. This should explain what therapy technique was

used. The child's reaction to therapy, whether positive or negative, should also be recorded. This is used to give the clinician a brief and specific view of how therapy is progressing or not progressing. Specific points of the therapy session need to be selected and pointed out for personal use. (See page 45 for sample copy of a clinical action page.)

Graphs and Charts

Charts and graphs are used in the same manner as daily progress reports. A chart or graph is usually used in a programmed approach to therapy. It is a very specific method of viewing progress. The days or number of sessions are recorded along the lower bar of the graph. The vertical bar of the graph records the frequency of the exercise or the number of correct or incorrect responses. When a session is recoreded, a mark is made on the appropriate bar. As therapy progresses, marks should be interconnected. Progress is then designated. If there is a gradual or rapid decrease in progress, the date is referred to and the daily progress report is reviewed in order to find out how the child is responding. This allows the clinician or aide to reschedule or replan therapy for the child.

Graphs and charts are a good accountability system to show supervisors, parents and administrators. This system should be used in conjunction with the daily progress report. (See pages 44 and 46 for samples of monthly graphs and charts.

SCREENING

Definition

Screening of speech and language involves examinations used when a quick decision about general adequacy in these two functions must be made. They are usually gross measures separating those needing help

from those who in all probability do not. Observation of the child and assessment by speech or language testing is usually performed. The types of screening measures that will be included here are for speech and language.

1. Speech screening is part of an overall program of conservation of human resources. It detects early language and speech problems which may prevent further emotional, learning, and other disabling problems. After further testing is performed organic, visual, auditory, motor, or other problems may be found which would, if left undetected, leave a learning disable child under most circumstances.

a. When: Ideally screening should be done in the early fall, and sometimes during February.

b. Who: Although this varies from school to school, the children who should be included are;

(1) Pupils seen previously in therapy.

(2) All children new to the school or school district.

(3) Children with delayed or defective speech.

(4) Children in adjustment or remedial classes.

(5) Pupils who are referred by the teacher.

In a new school setting or a school that is receiving the services of speech aides for the first time may want to screen the whole school population. Otherwise the list of priorities are sufficient.

c. Testing:

(1) Where: A quiet environment in the school setting.

(2) Amount of time spent: Generally this involves 5-15 minutes per child, although no set amount of time can be stated.

(3) Recording procedures: One should have at least the

name, age, grade, and school of the child written down for record-keeping purposes. Any observable abnormalities or unusual occurences during screening of the child can be noted. Any specific forms given to the aide by the speech clinician should be utilized, along with any test forms.

(4) Type of testing:

(a) Group: This is a seldomly used type of assessment. It is an informal means done by observation of a group of children interacting; thus, may be a more accurate means of showing the child's behavior in his natural environment.

(b) Individual: This can be conducted in one of two ways. First, by ushering the child into a room and performing the tests between the aide and the individual. A second way would be that of ushering a group of children into a room and having them observe the procedures used on the child being tested, so they may understand what is expected of them. The first method would work best with formal assessment measures the second with those of informal methods.

(5) Testing of Speech and Language:

(a) Informal Testing: This type of testing is doing without a standardized test consisting of a collection of normative data. It can range from asking the child to give his name, produce rate sequences, such as counting, months of the year, sisters and brothers names. By asking questions about how many pets he has, what he does in school, and what his favorite things to do are. Simple sentences like simple simon says, zoos have zebras, or red roosters rule can be used. Conversation or oral reading may be assessed. A word of caution against relying upon isolated phonemes,

as a child may be able to produce a sound in isolation, but not in connected speech. One can check stimulatability of a sound in isolation, but not in connected speech. One can check stimulatability of a sound, though, to see if the child can produce an incorrectly articulated sound after the aude's correct model, accurately.

(b) Formal Testing: These are tests that have been prepared and analyzed, many of them with normative data. Test pamphlets are available along with response forms for the individual child being tested. These tests are based on more than the intuition and arbitrarily assigned speech classifications done by informal testing. A few of those that can be considered for use follow in brief.

(1) Denver Development Screening Test. A screening instrument that gives an age level for Personal-social, Fine motor-adaptive, language gross motor (Frankenburg, et.al., 1970)

(2) Predictive Screening Test Of Articulation. A Van Riper test involving phoneme and word production, sentences, diadokokinesis, movements of tongue, and motor tasks. (Van Riper, 1969)

(3) Riley Articulation and Language Test. A six parameter test that can show a possible central nervous system disorder, peripheral malocclusions, or retardation by testing phonetic similarity, stimulatability, number of defective sounds, error

consistency, frequency of occurence, and developmental expectancy. (Riley, 1966)

(4) Language and Articulation Screening Test (LAST). This test prepositions, colors, shapes, story tellings, articulation; phonemes, blends, and connected speech. (Jelinek, 1972)

(5) Behavioral Index of Communicative Disorders, This assesses language, reading, speech auditory, visual, motor, math, emotional, and organic behaviors. (Stewart and Vasa, 1972)

Therapy Scheduling

Scheduling refers to the length of sessions, how often they should be held and group size. While this depends to a great extent on the individual child and his particular problem, there are guidelines which may be followed in establishing the therapy program.

The length of each session can play a significant part in the success of therapy. It is considered better to have more sessions of shorter length than a few sessions of great length. Young children tend to tire easily, lose their attention span and become more distractable in a session of great length. In a short session a young child is less likely to become restless and easily distracted. It is generally held that for children below 8 years of age, a half-hour session or less is best.

Sessions should be held as often as possible for the young child ---

3 to 5 times a week or more is ideal. The more serious the case, the more frequently the child should be seen.

For the young child, time of day should also be taken into consideration. It is extremely desirable to schedule the younger children for early sessions as they are more likely to be alert and willing to work in the morning.

The Head Start and Pre-school child will function, in most cases, very well in a group therapy environment. There are needless to say, those cases which will need to be scheduled on a strict individual basis. Group scheduling is ideal for language programs and may be adopted for articulation therapy, therapy for the hearing inpaired and speech improvement programs. The size and grouping of group therapy is dependent on the following factors: (1) type of problem: (2) age: (3) maturity and intelligence. Three to four children is an excellent size for a group, but there may be as many as six children per group. The size of the group may also be determined by the needs and numbers of children. For the serious cases, such as cerebral palsy, individual sessions are considered the best and should be held more often, with possible involvement in one or two group sessions per week.

A definite plan for the coming and going of the children to therapy should be made. The teachers should be made aware of the schedule for therapy so that a coordination of therapy with teaching activities may possibly be implemented. After the schedule has been made, it should be given to the speech clinician and constantly be brought up to date. The aide has an obligation to adhere closely to the schedule once it is established.

UNIVERSITY OF WYOMING
Department of Speech Pathology - Audiology

RELEASE AND AGREEMENT
(Sample)

CLIENT'S NAME _____ DATE _____

ADDRESS _____ PHONE _____

_____

PARENT OR GUARDIAN _____

ADDRESS _____

_____

My signature upon this form indicates that I fully understand and agree to the following conditions:

1. I understand that services rendered in the University of Wyoming Speech and Hearing Clinic are performed by Students of the Department of Speech Pathology/Audiology under appropriate supervision of the faculty.

2. I hereby grant the University of Wyoming Speech and Hearing Clinic permission to use or release any information or photographs of the above named client to individuals or agencies who are functioning to habilitate or rehabilitate the client.

3. I hereby grant the University of Wyoming Speech and Hearing Clinic permission to secure information from other agencies or individuals who are functioning to habilitate or rehabilitate the above named client.

4. I hereby release the University of Wyoming Speech and Hearing Clinic from all responsibility in case of illness or injury of any kind to the above named client during his/her attendance at the University of Wyoming Speech and Hearing Clinic.

5. Fees for the above named client will be $____per____hr. session

6. Fees are to be paid by:

( ) A. Myself Name _____

ADDRESS _____

_____

( ) B. Agency Name _____

Address _____

_____

SIGNED: _____
(Parent or Guardian)

CHILD INFORMATION FORM

I. General Information

Name_____ Date:_____

Birthdate:_____ File:_____

Father's Name_____ Age:_____ Occupation:_____

Mother's Name_____ Age:_____ Occupation:_____

Address:_____ Phone:_____

City:_____

Referred by:_____

Address:_____ Phone:_____

Family Physician:_____

Address:_____ Phone:_____

School:_____ Grade:_____ Teacher:_____

Brothers and Sisters (INCLUDE NAMES AND AGES): _____

_____

_____

Statement of the Problem:_____

_____

_____

_____

_____

_____

_____

Describe any other speech, hearing or language problems in the family:_____

_____

_____

II. Prenatal and Birth History.

Conditions During Pregnancy: General Health _____

Accidents: _____

Length of Pregnancy: _____ Illnesses _____

Birth Weight: _____ lb. ____ oz. Medical Care: _____

Length of Labor _____ Medication _____

Number of Miscarriages or Stillbirths _____

Age of Mother at Birth _____ Father _____

Birth Difficulties and/or Injuries _____

_____

Circle Delivers: Head First Feet First Breech Caesarian Section

Feeding Problems: _____

III. Medical History (fill in approximate age when child suffered the illnesses listed below):

Measles _____ Convulsions _____ Allergies _____
Whooping Cough _____ Mumps _____ Paralysis _____
Pneumonia _____ Hearing Problem _____ Earache _____
Ear Discharge _____ Others _____

Accidents: _____

Operations: _____

IV. Developmental History (fill in age when child began the following):

Crawling _____ Sitting _____ Standing _____

Walking _____ Feeding Self _____ Dressing Self _____

Completely Toilet Trained _____ Prefers Which Hand _____

Using Single Words _____ Combining Words _____

Difficulty in Walking, Running Or Throwing _____

_____

V. Speech, Hearing and Language Behavior:

Does child babble ____ coo ____ hum ____ sing ____ laugh ____ ?

Does child understand gestures_____speech_____

Does child respond to quiet sounds_____ loud sounds_____

Does child use words to make wants and needs known _____gestures_____

How does the child's speech differ from others his age?_____

_____

What was your first indication that a problem existed?_____

_____

Give place and date of any previous speech and hearing examinations:_____

_____

_____

VI. General Behavior:

Does Child eat well_____sleep well_____?

Respond well to family_____other people_____?

Is child attentive_____extremely active_____?

Does he bang his head, rock, or spin_____play by himself_____?

Is he restless _____Does he loose his temper_____?

VII. Additional Information (add here anything that you feel might be helpful in the evaluation of this child):_____

_____

_____

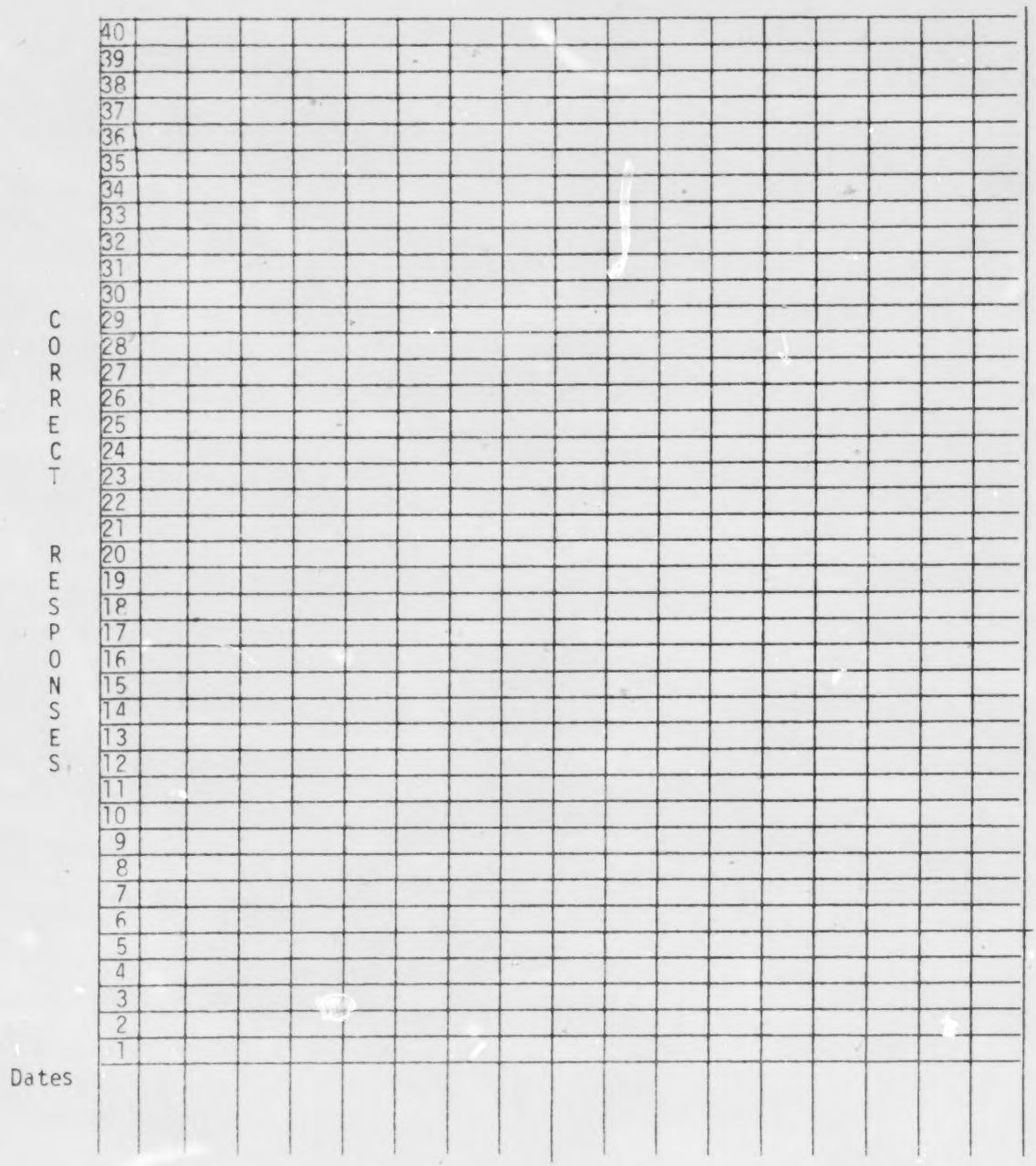
_____

Monthly Graph of Correct Responses
(for Parents, Teachers, Clinicians)

(Sample Copy)

Behavioral Objectives: Time Period:_____

Reinforcement Schedule: (eg. intermittent, etc.)



CLINICAL ACTION PAGE

(Sample Copy)

BE BRIEF, BUT COMPLETE, IN LISTING INFORMATION GAINED, RELEASED; PHONE CALLS; PARENT/CLIENT CONFERENCES AND OTHER CONTACTS, DATE AND SIGN ALL

DATE	ACTION TAKEN

RESPONSE CHART

. (Sample Copy)

DATE	TIME SPENT	CORRECT	INCORRECT	COMMENTS

CHAPTER V

BEHAVIORAL PRINCIPLES AND THEIR APPLICATION

We believe that a child acts the way he does, not because he was born that way, but because he was taught that way. Most of what we see other people doing represents something they have learned. Talking, playing, and working at tasks are all things that are learned. It is also true that whining, fighting, temper tantrums, and some types of speech and language problems are learned.

One of the most important things involved in this kind of learning is something that parents have known for thousands of years, but is has seldom been used very well. This first, simple idea, involves the use of rewards or positive reinforcers. As we use the words here, a reinforcer and a reward are about the same thing. Food and money are important kinds of reinforcers/rewards, but there are other reinforcers that are even far more effective. One of the most powerful reinforcers for a child is love, interest, and attention. When you are talking, your friends reinforce you by being good listeners. If they stopped listening to you, you would probably stop talking or change the subject. Each listener teaches you what to talk about---listening is a powerful reinforcer for talking---or how to talk, baby talk, a distorted /r/, etc. You will note that the reward strengthens the specific behavior, if you don't reward the behavior you will then weaken behavior, and in time, if there are none, or weak rewards, the behavior will extinguish or disappear.

With the many functional speech and language disorders of children we can see a generality of causes, all related to learning. If learned through

behavior modification techniques (though not defined as such) we can then correct/reshape through the same techniques. Our behaviors have been brought about by the behaviors of someone else. In essence, we can say that someone taught us or trained us to behave as we do. So, two people are involved---a learner and a teacher.

A definition of 'behavior modification' can be stated as: An application of operant conditioning for the purpose of education, or for changing behavior. The basic elements of which, are the cue, the behavior, and the reward. The cue is an event occurring immediately before a behavior. It is the initiating factor in the behavior modification 'set'. The behavior is any observable action or response exhibited, and the reward is any event which is pleasurable, or painful, which follows a desirable behavior.

Looking at our lives we discover that for us the results of our behavior are the things that determine whether we engage in an activity again. BEHAVIOR----------CONSEQUENCE. Much of what we do in the "here and now" is related to what will happen soon afterwards. As Deibert and Harmon (1972) have stated, the basic law is that of 'reinforcement', "living organisms tend to repeat those behaviors that result in rewards and tend to avoid those behaviors that fail to produce rewards".

The Role of Reinforcement in Behavior Modification

Reinforcement is a procedure through which behaviors are increased or maintained, and it is defined solely by its effects upon the behavior. There are two distinct reinforcement operations that increase and maintain behavior: positive reinforcement and negative reinforcement.

Presentation of a stimulus that increases or maintains a response is called positive reinforcement. For example, when a child says, "May I have a cookie, please", and the child gets the cookie it indicates this kind of relationship:

R----------S+
"Cookie Please" Gets Cookies

Types of Reinforcement.

There are many different types of reinforcement such as primary reinforces that "maintain" life, for example, food, oxygen,water, warmth, etc. These reinforcers can be used to teach a child with severe behavioral deficits appropriate language, physical, or social skill. Edible items seem to work very well as reinforcers.

Another type of reinforcement is the secondary reinforcer. Using a secondary reinforcer, we pair a desired response with a pleasant experience. For example, if the child presents us with a desired behavior we can reward the child with some extra playtime, or a hug. In time, with continued association of these pleasant experiences the desired behavior will increase. These types of secondary reinforcers, along with verbal reinforcement such as; 'good', 'thank you', etc are often called social reinforcement.

Token Reinforcement System.

Also included in secondary reinforcement is the token reinforcement system. This is a system where the child receives a token (chip, star, or bean) when he has given the desired response and, at a later date, he is able to turn these tokens in for another, stronger, reinforcing agent. For example, if Johnny gets 10 stars for producing the /r/ sound correctly, then he can turn these stars in for a prize. Examples of prizes that are frequently used are; candy, pop, tiny toys, books, or any item that seems appropriate for the child.

Principles of Reinforcement.

A basic principle of behavior is that immediate reinforcement is more effective than delayed reinforcement. Therefore, if we want to reinforce a child so that he knows exactly what he is being reinforced for, it should be done immediately.

The effectiveness of reinforcement depends upon a number of factors; (1) the type of reinforcement used (primary or secondary); (2) the length of time the child has been without the item. Certain people may need specific kinds of reinforcement to maintain, or establish the desired behavior. Therefore, we must determine what is effective reinforcement for each child. The type of reinforcement used depends upon the child, what does he value, what is the pay-off? If the child does not like milk, then milk won't be an effective reinforcer for that child.

Reinforcement Schedules.

The scheduling of reinforcement refers to the "rules" used in determining which among the many occurrences of a response will be reinforced. There are two types of reinforcement schedules that we will be concerned with; (1) continuous; and (2) intermittant reinforcement. Continuous reinforcement refers to reinforcement immediately after every desired response and intermittant reinforcement refers simply to reinforcing desired responses on an occasional basis. Working with young children it is often necessary to begin with a continuous reinforcement schedule, and once the desired behavior is established then move towards an intermittant reinforcement shcedule. Intermittant reinforcement tends to maintain a behavior much longer. As the desired behavior becomes stronger, and occurs more often, the intermittant reinforcement schedule should be slowly phased out. Intermittant scheduling depends upon the child and the child's problem. Therefore, reinforcement may need to occur on a continuous schedule much longer, or move to intermittant reinforcement faster.

Negative Reinforcement.

A second type of general reinforcement is negative reinforcement, where a behavior is reinforced by removing an aversive stimulus. If the rate of response increases as a result of the removal of some stimulus after a

response , the termination of that response, is called negative reinforcement, and the stimulus is called a negative reinforcer. Thus under these conditions positive and negative reinforcement both refer to operations that will strengthen behavior. If an apology, "I'm sorry", is strengthened by the termination of the husbands, "nagging", the cessation of the stimulus called "nagging" is an instance of negative reinforcement. Reinforcers are defined in terms of their effect upon the frequency of behavior.

Punishment.

Behavior can also be weakened, or eliminated, by consequences. After an act is performed a positive reinforcer may be removed or a negative reinforcer presented. This will usually decrease the future probability of the behavior, and is called punishment. There are probabilities that punishment may become reinforcing to the child. The application of the hand to the seat of the pants, or a verbal chewing out, may be just the attention getting devices the child is looking for. If so, they then become positive reinforcers and the child will continue with the undesired behavior so that he may receive the desired attention.

Another aspect of punishment is a time out from positive reinforcement. In this aspect a stimulus that has been associated with non-reinforcement is presented after an undesirable response. Thus, if a child is performing an undesirable behavior during a session, the aide may shut her eyes and drop her head for a time. During this time, the aide will neither respond to the child nor provide any opportunity for reinforcement. It may appear that a response that is not already in the child's repertoire cannot be learned because to be reinforced it first must be emitted (take place). However, there are several ways in which a new behavior may be brought about. One of these is by shaping, which involves the use of reinforcement with different effects and successive approximations to develop the new behavior. An example

is when a child is learning to produce the /s/ sound, certain productions of the sound resemble the sound that is required to be acceptable, while many of the others will deviate more away from an acceptable production. Even though the best production is a crude semblance of the required one, by reinforcing this production and ignoring the others a shift toward more use of this production will occur. As this shift takes place and production of the/s/ moves closer to the required sound, reinforcement should become more discrete and the criteria for when to reinforce more strict. This gradual change in reinforcement criteria as the procedure develops is described as successive approximations or shaping.

COUNTING BEHAVIORS AND BASELINING

In any program based on behavior modification principles, the goal is to change some behavior, whether it be to correct the production of an /s/ sound or trying to get a child to pay attention. This means there is a need to obtain an objective record of the subject's behaviors.

The behaviors to be changed are set forth in written objectives and recommendations. Each behavior selected should be well defined, observable, and countable. It is best to specify the behavior to be changed and the specification should be such that is it directly observable. After specifying the observable behavior, counting the number of occurences of this behavior are then necessary. By counting the occurences of the specified behavior within a time frame, or within a given number of times (percentage), the behavior can be identified as to its strength. Baselining is an initial step in any program and consists of counting the specified behavior on three different occassions and taking the average. Using an average of three allows for the variables of being tired, distracted, etc., to be somewhat controlled.

Counting Behaviors can be done in three ways: (1) Counting by the aide

during the session; (2) Using a tape recorder and counting the responses by playback; and (3) by having an observor count the behaviors. The first one is where you have a counter and count each response when the child makes one. The second one allows you to do the counting later and also gives you a good chance to evaluate yourself and your techniques. The third one, using the observor, is good to see if you are counting the behaviors and/or responses defined and if you are doing it accurately

Graphing.

The results of baselining and counting of behaviors are usually represented (plotted) on a graph. This will give you a visual representation of the child's day to day progress. The baseline on the graph is actually the zero session and is represented by a Δ. The resulting total number of responses are plotted sequentially on proper session and response axis and are represented by a O.

It is important when counting behaviors that the behavior is either scored correct or incorrect. More important than this is to make sure the child knows the criteria and you tell him if it is correct or incorrect.

PERSCRIPTIVE PROGRAMMING

The term"perscriptive programming" is, very simply, making a decision based on diagnostic and observational information as to what behaviors we wish to change in a child. From this information we write a prescription stating the process by which the selected behaviors will be changed. The prescription is most often written in terms of an instructional objective.

Understanding Instructional Objectives.

When an individual has decided to teach a principle, it is important that he decides what he's going to teach, how he's going to teach it, and the criteria which will be used to substantiate what he has taught. For

these reason, the use of instructional objectives are important. Because objectives clearly define all aspects of the teachers goals as well as the expectations of the students, they are necessary in teaching situations. An objective illustrates the prescriptive programs plan of action, or more simply the intervention processes intended outcome.

An objective must be observable and measureable. Any behavior that is observable requires that it be observed through one of the senses, and measurability requires that the behavior must be discrete and specific, as well as observable. The objective is written in behavioral and performance terms and describes the intended results of a prescriptive program. Performance terms identify what the child will be doing as he is acheiving the stated objective. A quick and general criteria for a good objective is whether it is clear enough so that another person could understand it, deliver it, and measure it. This chapter is intended to widen the understanding of the use of objectives, as well as to help the readers to utilize objectives in their teaching methods.

The Use of Learning Packets to Facilitate Speech and Language Remediation in the Home or Classroom

The purpose of a learning packet is to provide the parents, teachers, or communication aides with remediation activities which they can implement at home, or in school. These packets are structured so that those persons working with the child will know exactly what their responsibilities are, how to carry it out and when it should be completed. This is accomplished through an intervention process of writing supportive instructional objectives and specific educational recommendations developed by Custer, Dublinski, and Grimes (1972). With the supportive instructional objectives there is clear

method of monitoring progress, thus providing feedback on the effectiveness of the recommendations and accountability. The specificity of the objective and recommendations increase the probability that the objective would be carried out by the parent, teacher, or aide.

Contents:

After the specific needs of the child had been identified the learning packet is constructed - by writing critical decisions, supportive instructional objectives, and recommendations. The first step in writing a learning packet is to write down the behavior of a child that is to be increased or decreased. This gives a general direction to the packet and is formulated in a statement called a critical decision. The purpose of the critical decision is to clearly and consisely specify what behaviors have been given priority for change and indicate the direction of change. Two example of a critical decision are:

How to increase appropriate use of prepositions.
How to decrease visiting with classmates during reading.

The supportive instructional objective is a statement of performance or behavior that is desired of the child. It is a statement in which one desired accomplishment can be measured within a given frame. To be measured, a supportive instructional objective must meet the following criterion:

1. When is it going to be done.
2. Who is going to do it.
3. What is going to be done.
4. To whom is it going to be done
5. Criteria that will indicate accomplishment of the objective.
6. Evaluation method that will be utilized to determine if the objective has been completed.

The following is an example of an SIO.

By 3/2/73 after the following recommendations have been carried out by Ms. Kamoda, George will have completed the 1st book of the /s/ program and have passed the criterion test with 90% accuracy. The follow-up clinician will evaluate this objective by giving the

criterion test on 3/2/73 and by checking the mothers records to see if the book was completed.

The recommendation is used to see that the child moves from his present behavior to the desired behavior. Bringing about the change is most effective when specifying 1) what is to be done, 2) how many are to be done, and 3) how often. The following is an example of a recommendation that includes these components:

> Use the programmed articulation /s/ pack book I. Go through the book reading the instructions as directed by the follow-up clinician. Do 10 items a day until all 80 items have been completed. Record each day that you have completed 10 items. Do this activity at least four a week, 10 items a day.

If specific materials, such as worksheets, toys, books, or pictures are suggested in the recommendations, these must be included in the learning packets.

CHAPTER VI

CONCLUSION

The concept of training para-professionals to assist speech pathologists in the rehabilitation of speech, hearing and language handicapped children has been developed within the last five years. Guidelines for specific activities to be performed by the communication or speech aide have been set forth by the American Speech and Hearing Association (1970). In reviewing the literature, it appears that communication or speech aides have been utilized primarily in the public schools. However, they can also perform vital programming in Headstart or pre-school centers.

This handbook is designed as an information and training guide for communication or speech aides who work with pre- or elementary school age children. Included are: (1) a delineation of the roles and responsibilities of the communication or speech aide; (2) information on normal development; (3) a capsule presentation of speech, hearing, and language problems; (4) administrative procedures; (5) behavioral principles and their application; and (6) appendices which include definition of terms and information on materials which are applicable for use in programming for communicatively handicapped children. Although the information presented is a format for the communication or speech aide to follow, it is but a foundation upon which the supervising speech pathologist can either add or subtract.

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APPENDIX

APPENDIX A. ii

APPENDIX B. iii

APPENDIX C. iv

APPENDIX D. v

APPENDIX E. vi

APPENDIX F. vii

APPENDIX G. viii

APPENDIX A

DEFINITIONS

APHASIA -- a general language deficit that crosses all language modalities and may or may not be complicated by other sequelae of brain damage. The language deficit itself is characterized by reduction of available vocabulary, impaired verbal retention span, and impaired perception and production of messages.

APHONIA -- voicelessness, generally with sudden onset occuring more frequently in girls than boys and may appear as early as publerty. Typical failure is that the vocal folds do not approximate.

ARTICULATION DISORDER -- the production of any of the speech sounds in a way different than the usual, accepted manner which calls attention to the individual's speech, makes it difficult to understand, or even unintelligible.

TYPES OF ARTICULATION DISORDERS --

ADDITION -- the adding of an extra sound where it is not normally found.

DISTORTION -- the producing of a sound or sounds which approximates the normal sound but which by comparison with the usually acceptable standard is regarded as distorted.

OMISSION -- the omitting of a sound, sounds, or an entire syllable where it is normally found.

SUBSTITUTION -- the substituting of a sound or sounds in place of the sound or sounds which are normally found.

AUDIOGRAM -- a graphic representation of an individual's hearing acuity; shows air conduction, bone conduction with and without masking in the right and left ears.

AUDIOMETER -- an instrument used in measuring the acuity of hearing through either pure tone threshold testing or speech reception and discrimination.

AUDITORY ACUITY -- the keeness of perception by the way of the auditory system, is dependent upon the proper functioning of the outer, middle and inner ear.

AFFRICATIVE -- this is a consonant sound which begins with a plosive. The compressed air is then pushed through the mouth as a fricative continuant. There sounds are: /tʃ/, /dʒ/.

FRICATIVE -- one type of consonant sound which occurs when the voiced or voiceless breath is pushed through a narrow space between the lips. These sounds are: /θ/, /ð/, /s/, /z/, /ʃ/, /ʒ/.

GLIDE -- this is a consonant sound that has a constant point of begining. It consists of a variation of sounds which glide toward the vowel which guide toward the vowel which follows. The glides are: /hw/, /w/, /j/.

NASAL -- a consonant sound which results when the air stream from the oral cavity is allowed to enter the nasopharynx and travel along the nasal passages to the outside. The nasals are: /m/, /n/, /ŋ/.

Classified according to the anatomical position where they are proncunced:

BI-LABIAL -- this is a consonant sound which results when the lips are brought partially or completely together. the bi-labials are: /p/, /b/, /hw/, /w/, /m/.

LABIODENTAL -- a consonant sound which occurs when the lower lip is firmly raised against the upper front teeth. The labiodentals are: /f/, /v/.

LINGUADENTAL -- a consonant sound resulting from pushing the tongue against the teeth. The linguadentals are: /θ/,/ð/.

PALATAL -- consonants sounds which occur when the tongue touches the hard palate. These sounds are: /j/, /r/.

LINGUA ALVEOLAR -- consonant sounds produced when the tongue touches the gum ridge. These sounds are: /n/, /t/, /d/, /l/, /s/, /z/, /ʒ/, /ʃ/, /dʒ/, /tʃ/.

VELAR SOUNDS -- a consonant sound which results when the base of the tongue is raised upwards toward or against the soft palate. These sounds are: /k/, /g/, /ŋ/.

GLOTTAL -- a speech sound which is produced at the level of the glottis, an opening between the vocal folds. It is formed when air travels over the vocal folds which are partially or completely closed. The glottal sound is: /h/.

AUDITORY DISCRIMINATION -- ability to distinguish auditorily between any two stimuli within rhythm, intensity, frequency or phonemic category.

AUDITORY MEMORY SPAN -- ability of the subject to reproduce orally and in sequence the material presented orally to him.

AUDITORY SEQUENCE -- ability of the subject to hold a pattern of sounds mentally after they have been presented auditorily and to reproduce that pattern in sequence or order.

AUDITORY PERCEPTION -- factors or significant sources of variance which effect an individual's ability to hear, recognize and make use of auditory stimuli.

BILINGUAL CHILD -- a culturally different child for whom standard English has become a second language. This child displays mild to severe problems in receptive and expressive skills of English.

CARRYOVER -- is extending stimulus control over desired speech responses to daily life.

CEREBRAL PALSY -- the impairment of muscular function as a result of damage to the brain.

CLEFT PALATE -- the incomplete fusion of the palatal bones found in the roof of the mouth, thus creating a hole connecting the oral and nasal cavities, may be of the soft or hard palates or both.

CLEFT LIP -- the incomplete fusion of the lip, may be associated with a cleft of the palate.

COMMUNICATION AIDE -- is a person who provides speech and language therapy under the supervision of a certified speech pathologist.

CONDUCTIVE LOSS -- the type of hearing loss which results when there exists in either the external or the middle ear an abnormal condition that interferes with the transmission of vibratory energy.

CONSONANT -- speech sounds which result when the breath stream is constricted in some manner. They are not dipthongs or vowels. Consonants may be classified according to how they are produced or where they are produced or whether they are voiced or voiceless.

Classified as to how they are produced:

Classified acccrding to whether the consonants are voiced or unvoiced:

VOICED -- consonant sounds which are produced when the air stream causes the vocal folds to vibrate. This vibration may be felt by placing the fingers in the laryngeal area then producing the sound.

UNVOICED -- consonants which arc not accompanied by vocal fold vibrations.

Some of the consonant sounds fall into voiced and voiceless pairs. Each consonant pair has the same manner of articulation. The only difference is the absence or presence of vocal fold vibration.

Pairs: (cognates)	UNVOICED	VOICED
	p	b
	t	d
	k	g
	f	v
	s	z
	θ	ð
	t	d

DEAF -- one who, at the time of life when speech and language usually develop, did not have sufficient hearing to make its natural acquisition possible.

DEAFENED -- one who has developed an awareness of speech and language naturally by ear but who no longer has sufficient hearing to enable him adequately to hear his own speech or that of others with or without a hearing aid to hear his own speech or that of others with or without a hearing aid.

DELAYED LANGUAGE -- a failure to understand or speak the language code of the community at a normal age.

DELAYED SPEECH -- a delay in the child's normal development towards true speech and language, when he does not keep up to the time table of developmental norms.

DIPTHONG -- A group of gliding sounds which begin with one vowel and end with another vowel.

FEEDBACK -- the return to the input of a part of the output of a system or process, as in the self-regulation of one's own speech.

FLUENCY -- the rhythm of speech.

FUNCTIONAL -- synonymous with non-organic.

GROUP THERAPY -- therapy given simultaneously to several people usually having similar problems; is helpful in adjustment problems where the individual benefits from group suggestions; used most often with articulation problems.

HABITUAL PITCH -- one around which voice is typically produced.

HARD-OF-HEARING -- one who has sufficient hearing to learn to produce and to understand speech and language naturally by ear.

LANGUAGE -- a formal system of signs and symbols including rules for the formation and transformation of admissible expressions used and understood by a considerable community.

LOUDNESS -- The intensity of sound is perceived by the ear as its loudness.

MALOCCLUSION - DENTITION -- malformations of the dental structure, may involve open, crossed or closed bites, maligned and supernumerary teeth.

MENTAL RETARDATION -- failure in intellectual development that results in social incompetence and is held to be caused by defect or damage to the central nervous system.

MIXED LOSS -- the type of hearing loss which is a combination of conductive and sensorineural losses.

NASALITY -- is an attribute of speech based on a listener's perception of spectrum characteristics he has learned to associate with a lowered velum.

NASAL EMISSION -- is audible or measureable air escaping through the nasal passages and is heard most frequently during the production of voiceless plosives and fricatives.

DENASALITY -- is perceived when there is a partial or complete obstruction in the nasal tract.

NASAL RESONANCE -- is the energy pattern added to the spectrum of a speech sound when the nasal tract is coupled to the vocal tract, and consists of both resonances and antiresonances.

NATURAL PITCH -- one at which the voice functions most efficiently

NORMATIVE DATA -- average time the most typical child would develop a norm.

ORGANIC -- something affecting the structure or structures of a bodily organ.

PHONATION -- the production of speech sounds by the emission of puffs of air through the vocal folds causing them to vibrate.

PHONEME -- an individual speech sound

PHONETIC ALPHABET -- any system of identifying letters of the alphabet by means of code words in voice communication; the most popular and universal alphabet is the International Phonetic Alphabet.

RELEASE FORM -- a legal document giving the parents permission for distribution of confidential information on their child to professionals involved in the therapy and progress of the child.

SCREENING -- can be concerned with hearing, articulation or language. As a preliminary check or recheck to determine any need for further testing which in turn will determine the need for therapy.

SCREENING TEST -- mainly concerned with detecting the ability.

SENSORINEURAL LOSS -- the type of hearing loss which results from damage to or abnormal development of the end organ (cochlea) or the nerve of hearing.

SOUND DISCRIMINATION -- the capacity to distinguish one sound from another at various pitches and intensities.

SPEECH -- the communication or expression of thoughts in spoken words; a subdivision of a language.

SPEECH IMPROVEMENT PROGRAM -- the systematic instruction in communication in all classrooms.

SPEECH DISCRIMINATION -- the capacity to distinguish the spoken word at various pitches and intensities.

STUTTERING -- non-fluent speech characterized by repitition and blocking on occasional sounds, words, or phrases, individual traits and behavioral manifestations are associated with the individual who stutters.

PERSEVERATION -- (as in stuttering) a tendency for a manual or motor process to continue in activity after the situation which called it forth ceases to be present.

VOICE DISORDERS -- disorders of pitch, disorders of loudness (or intensity), disorders of quality, and disorders of flexibility.

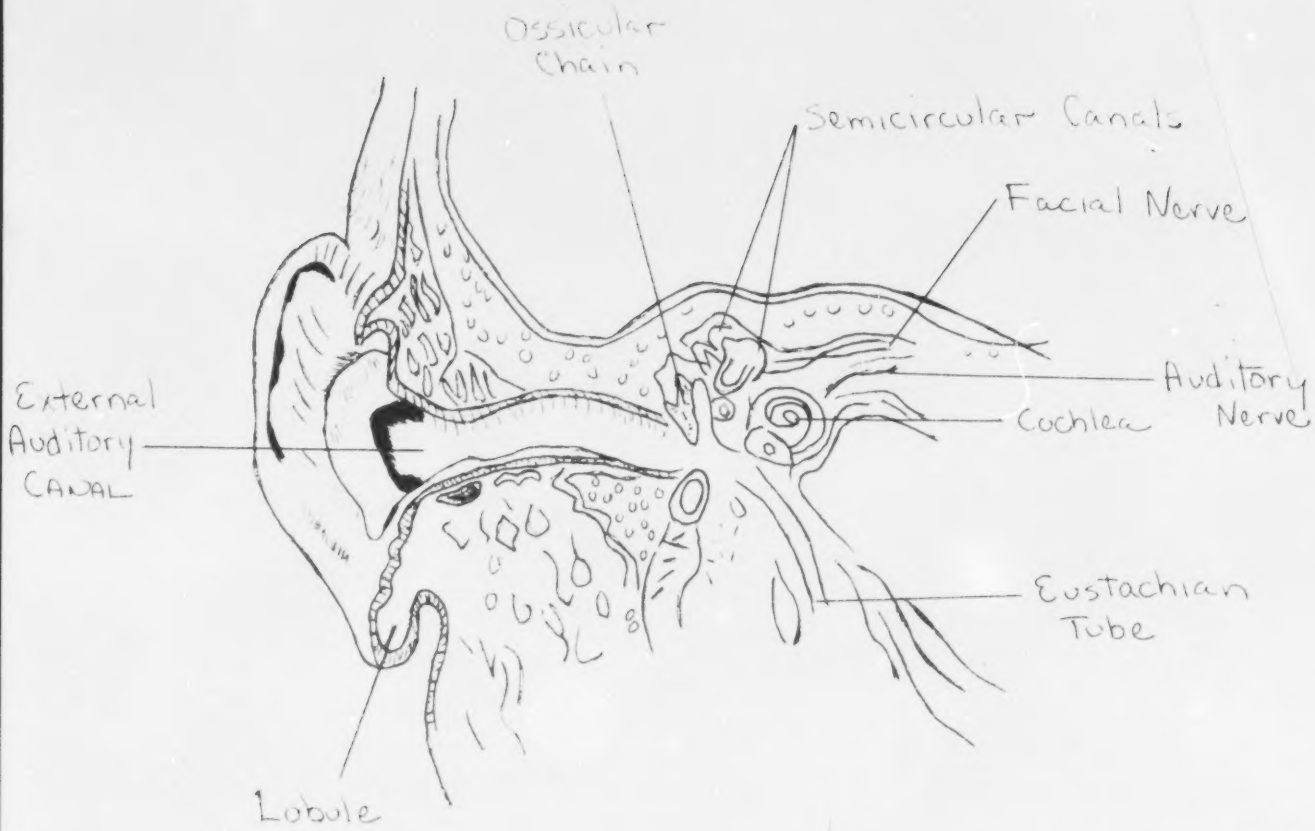
VOWELS -- voiced speech sound formed by different positions of the lips tongue and jaw. The larynx produces a tone which travels up through the various resonating cavities and into the mouth where it meets with little resistance as the sound is produced.

BACK VOWEL -- back part of tongue is arched toward the roof of the mouth: /ɑ/, /o/, /ɔ/, /ʊ/, /u/.

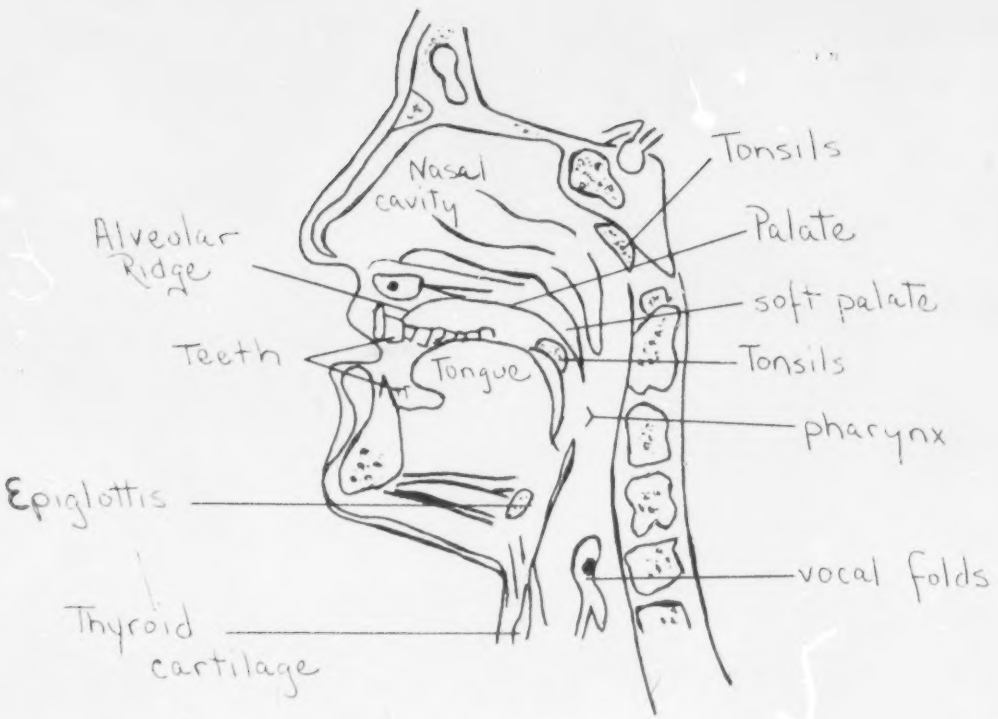
CENTRAL (MID) VOWEL -- central part of tongue is arched toward roof of mouth /ʌ/, /ɝ/, /ɜ/, /ɚ/, /ə/, /ə/.

FRONT VOWEL -- front part of tongue has the highest arch: /I/, /e/, /ɛ/, /æ/.

EAR


Ossicular Chain
Semicircular Canals
Facial Nerve
Auditory Nerve
Cochlea
External Auditory CANAL
Eustachian Tube
Lobule

VOCAL TRACT


Nasal cavity
Tonsils
Palate
Alveolar Ridge
soft palate
Teeth
Tongue
Tonsils
pharynx
Epiglottis
vocal folds
Thyroid cartilage

INTERNATIONAL PHONETIC ALPHABET:

Phonetic Symbol	Sample word	Phonetic spelling Pronunciation
i	me	(mi)
I	him	(hIm)
e	safe	(sef)
ɛ	met	(met)
æ	hat	(hæt)
a	dart	(dart)
ɔ	law	(lɔ)
o	toe	(to)
ʊ	book	(bʊk)
u	due	(du)
ʌ	under	(ʌdɚ)
ɝ	further	(fɝðɚ)
ə	above	(əbʌv)
ɚ	weather	(wɛðɚ)
əI	fight	(fəIt)
oɪ	toy	(toI)
ju	unite	(junaɪt)
əʊ	how	(həʊ)
p	pain	(pen)
t	take	(tek)
b	bat	(bæt)
d	do	(du)
k	cat	(kæt)
g	go	(go)
ʧ	church	(ʧɝʧ)
ʤ	joke	(ʤok)
f	fit	(fIt)
v	vase	(ves)
θ	thin	(θin)
ð	the	(ðʌ)
s	soap	(sop)
z	zoo	(zu)
ʃ	shy	(ʃəI)
ʒ	measure	(meʒɚ)
h	hat	(hæt)
m	may	(me)
n	note	(not)
ŋ	ring	(riŋ)
l	aisle	(əɪl)
w	win	(win)
hw	white	(hwaɪt)
j	yes	(jes)
r	red	(red)

NOTE: Use ʌ and ɝ in accented syllables and ɚ and ə in unaccented syllables.

APPENDIX B

BILINGUALISM IN THE PUBLIC SCHOOLS

LIST OF TESTING MATERIALS IN ENGLISH
AS A SECOND LANGUAGE AND SPANISH

1. Analysis of Reading -

This is a short test for children beginning formal schooling; visual perception of letters, letter identification, mathematics; it is designed for beginning school children.

ADDRESS:

Houghton Mifflin Co.
53 West 43rd St.
New York, N.Y.

2. BOEHM Test of Basic Concepts -

This is a group test, Spanish & English School Instruction. It measures the child's knowledge of concepts assumed known on school entrance.

ADDRESS:

Psychological Corp.
304 E. 45th St.
New York, N.Y. 10017

3. Brown-Carlsen Listening Comprehension Test -

This is designed to measure the ability of students to comprehend spoken language; it is set up for grades 9 and up.

ADDRESS:

Harcourt, Brace and Javonovich Inc.,
757 Tnird Ave.
New York, N.Y. 10017

4. California Test Bureau English - Spanish Version -

This is a test of comprehension, used in testing Spanish and English.

ADDRESS:

Manchester Road
Manchester, Missouri 63011

5. Comprehensive English Language Test (CELT) -
by David P. Harris and Leslie A. Palmer

This test included listening structure and vocabulary; it is designed for high school and adults.

ADDRESS:

McGraw-Hill Book Co.
International Division
330 West 42nd Street
New York, N.Y. 10036

6. Conceptual Oral Language Test (COLT)

This is designed to assess people's ability to solve problems and think in terms of concepts in math science, and social studies. There are four parts: differentiation, classification, seriation and analogies. It may be utilized for content as well as comprehension, no reading or writing is necessary. The levels included in this test are, grades 1-3.

ADDRESS:

Michigan Migrant Interdisciplinary Project 3800
Packard Road
Ann Arbor, Michigan 48104

7. Diagnostic Test for Students of English as a Second Language -
by A. A. Davis

This test covers, general grammar, exclusively of verbs, and idiomatic vocabulary. It may be good for older students who are able to read and have had some instruction in English.

ADDRESS:

McGraw-Hill Book Co.
330 West 42 St.
New York, N.Y. 10036

8. ESL Placement Test for Non-English Speaking Children -

To carry out this test, you use puppets. It is designed for grades 1 & 2.

ADDRESS:

San Diego City School Program Division Educational Center
4100 Normal St.
San Diego Calif. 92103
c/o Clifford Mendoza

9. Fluency Test -

This is a spot test in English, it covers k-1.

ADDRESS:

Follow Through Project
University of California
Room 2322
Library S. Riverside, CA 92502

10. Gates-McGinitie Test - of Reading -

This test measures reading, vocabulary and comprehension.

ADDRESS:

Teacher's College Press
Columbia University
1234 Amsertdam Ave.
New York, N.Y. 10027

11. Illinois Test of Psycholinguistic Abilities-

This test allows comparisons of the person's relative functioning in several"language functions."

ADDRESS:

University of Illinois Press
Urbana, Illinois

12. Language Dominance Criteria (LDC)-

This test has a social section and a performance section to measure the ability of a child to speak Spanish and English. It covers the beginning school children.

ADDRESS:

Houghton Mifflin Co.
53 West 43rd St.
New York, N.Y.
c/o Joseph A. Fraulo - Regional Test Coordinator

13. Language Facility Test -

This test obtains a standardized sample of speech in 10 minutes or less by means of having the subjects tell stories about or describe a series of pictures. It includes grades 1-6.

ADDRESS:

The Arlington Corp.
801 N. Pitt Station
#701 Alexandria, Virginia 22314

14. Linguistic capacity Index -

This test was based on a contrastive analysis of English and Spanish grammar and phonology. It was intended for primary grade Pupils whose native language is Spanish. It may be used as a measure of English language readiness and pupil achievement. It included vocabulary, phonology and grammar. It is designed for early grades.

ADDRESS:

Fresno State College
Fresno, California
Frederick H. Frengelman, Ph. D., John C. Manning, Ed. D.

15. Michigan Oral Language Test -

This test assesses the child' ability to produce standard grammatical and phonological features when he speaks. It is given orally and different responses may be acceptable. It is applicable to any level.

ADDRESS:

American Council of Teachers of Foreign Language
62 Fifth Ave.
New York, N. Y.

Foreign Language Consultant,
Curriculum Division
Michigan Dept. of Education
Lansing, Michigan 48902

16. Peabody Picture Vocabulary Test -

This test samples the child's picture recognition and vocabulary adequately in English, but Spanish translation seems fraught.

ADDRESS:

American Guidance Service, Inc.
Publisher's Building
Circle Pines, Minnesota 55014

17. Pimsleur Language Aptitude Battery -

This test identifies individual learning difficulties.

ADDRESS:

Harcroft, Brace & World Inc.
Test Dept.
757 Third Ave.
New York, N.Y. 10017

18. Reading and Vocabulary Tests -

This test is designed to assess the reading comprehension skill of individuals and groups and to check students progress and growth in reading ability through retest.

ADDRESS:

Psychological Corp.
304 E. 45th St.
New York, N.Y.

19. Reading Comprehension Test -

This test is designed for Puerto Ricans in Puerto Rico. It covers the intermediate grades, 7, 8, 9.

ADDRESS:

Office fo Evaluation
Hato Rey, Puerto Rico
c/o Claudio D. Ortiz

20. Reading Tests New Inter-American Series English and Spanish - by Hershel T. Manuel

This test checks the reading and general ability, which includes, vocabulary, speed of comprehension and level of comprehension. It covers grades 1, 2, 3, 4, 5, and grades 1-12.

ADDRESS:

Guidance Testing Assoc.
6516 Shirley Ave.
Austin, Texas 78752

21. Wide Range Achievement Test -

This is a fast method to specifically determine a child's grade level for instruction.

ADDRESS:

Guidance Testing Assoc.
6516 Shirley Ave.
Austin, Texas 78752

LIST OF MATERIALS IN ENGLISH
AS A SECOND LANGUAGE AND SPANISH

1. Urban Research Group -

They have devloped a series of educational instruments and materials for children at pre-kindergarten through elementary school level.

Four instruments in this series inventory the affective domain in the areas of attitudes toward school, self-concept and culture. Two tests are designed to measure English and Spanish language comprehension. The Spanish Reading Readiness Program, prepares the child to begin reading in approximately six weeks.

ADDRESS:

Urban Research Group
306 W. 16
Austin, Texas 78701

2. Goldman-Lynch - Sounds and Symbols Kit

They put out sounds and symbols developmental kit, containing a tape, storybook, manual, high-hat puppet.

ADDRESS:

American Guidance Service
Publisher's Building
Circle Pines, Minn. 55014

3. Developmental Learning Materials -

This company puts out programs for developing learning. Their programs are designed and associated with learning disabilities problems.

ADDRESS:

DLM
3505 N. Ashland Ave.
Chicago, Illinois 60657

4. English Second Language -

The ESL is directed toward teaching the child English. It contains a manual, picture cards.

ADDRESS:

not indicated.

5. Word Making Productions -

This company puts out a program of a basic set of word making cards in black and white, and manual. It is designed to work on articulation and language.

ADDRESS:

Word Making Productions
Box 305
Salt Lake City, Utah 84110

6. Better Speech and Better Reading -

This is a book by Lucille D. Schoolfield, designed as a practice book for word drill and sentences for all sounds. It is also good for conversational speech with the use of poems.

7. Peabody Language Development Kit -

This kit contains pictures thought to be with in the child's experiences; the purpose behind the kit is to increase the child's vocabulary.

ADDRESS:

American Guidance Service
Publishers' Bdg.
Circle Pines, Minnestoa

8. Harcourt Brace Jovanovich Inc. -

This company publishes learning materials for preschool children and for all twelve grades in the fields of English, social studies, science, foreign language, math and reading. It includes, textbooks, teachers' manuals, teaching tests, workbooks, slides, tapes and records, and classroom laboratories.

ADDRESS:

Harcourt Brace Jovanovich Inc.
757 3rd Ave.
N. Y., N.Y. 10017

9. MacMillan Co. - Early Childhood Discovery Materials-

These materials help the teacher encourage the development of four major skills: language skills, conceptual skills, perceptual skills, and motor skills. It consists of Interrelated Materials and Associated Materials, which can be used separately or together.

Interrelated Materials - $32.50
Associated Materials - $8.00-$60.00

ADDRESS:

MacMillan Co.
School Division
Riverside, New Jersey 08075

10. Random House - Crisis in the Classroom -

This is a book on why our schools are failing; why remedies have proved to be ineffective.

Cost: $7.50

ADDRESS:

Random House, Inc.
Box 10075
Church St. Sta.
New York, N.Y. 10049

11. Bowmar -

They teach English as a second language. It contains teacher's guide; each story has four parts: narrative, answering questions, phrase, repetition and confiramtion, illustrative verse. Records, filmstrips, and cassette tapes are available.

Costs:
2-records and 2-filmstrips = $19.99
2-cassette and 2-filmstrips = $21.99
3-records and 3-filmstrips = $39.98
3-cassette and 4-filmstrips = $43.98

ADDRESS:

Frontier Book Distributors
220 S. Main
River Falls, Wisconsin 54022

12. Houghton Mifflin Co. - Introducing English -

This is an oral program for Spanish speaking children who need to learn to use and understand spoken English before learning to read it.

Picture cards and duplicating masters are it's vehicle for skills development.

This program is good for other languages and disadvantaged children.

Cost: Set $21.00
Levels: Grades - 1-5

ADDRESS:

Houghton Mifflin Company
1900 South Batavia
Geneva, Illinois 60134

OTHER RESOURCE BOOKS AND THEIR PUBLISHERS

Educational Resources Information Center:

Toward A Bi-Cultural Curriculum, Report 1
Areas Where Research is Needed in Bilingual Education

Mexican Americans - A Handbook for Educators

ADDRESS:

ERIC
Clearinghouse for Linguistics
Center for Applied Linguistics
1717 Massachusetts Ave. N.W.
Washington, D.C. 20036

Southwest Educational Development Corporation:

Disadvantaged Mexican American Children and Early Educational Experience

Lessons in English Pronunciation for Spanish Speakers

Oral Language Development-Science Units II, III, IV

Creative Experiences for Young Children

Oral Language Development - science

Learning Objectives & Teaching Strategies

Testing, Testing, 1-2-3

Behavioral Objectives

Bridging the Gap

ADDRESS:

Southwest Educational Development Corporation
800 Brazos St.
Austin, Texas 78703

University of Southern California:

Language Motivating Experiences for Young Children

ADDRESS:

University of Southern California
Bookstore
Los Angeles, CA

Institute for Development of Educational Activities:

The British Infant School

ADDRESS:

I/D/E/A
Box 446
Melbourne, Florida 32901

APPENDIX C

ARTICULATION TESTS

Arizona Articulation Proficiency Scale: Janet B. Fudala

The basis for the AAPS test is the belief that the more frequent a defective sound is used in the language, the greater is the speech problem.

The components of the test consists of a manual; picture cars, sentence test, Proctocal Booklet, and a survey form.

Because of high reliability and the ease and quickness of administration; the APPS can be used as an effective screening device, accountability of therapy sessions; and in the discovery of misarticulation.

Also the test has an "Articulatory Proficiency Scale" which is used for the interpretations of test results.

Address:

Western Psychological Services
Publishers and Distributors
12031 Wilshire Blvd.
Los Angeles, California 90025

A Deep Test of Articulation: Eugene T. McDonald

Address:

Stanwix House
Pittsburgh, Pennsylvania

The Fisher-Logemann Test of Articulation Competence: Hilda B. Fisher and Jerilyn A. Logemann.

The test is designed (1) to implement the examination of the test subjects phonological system in an orderly framework; (2) to provide ease in recording and analyzing phonetic notations of articulations: and (3) to facilitate accurate and complete analysis and categorization of articulatory errors.

Address:

Houghton-Mifflin Company
Boston, Massachusetts

Goldman-Fristoe Test of Articulation: Ronald Goldman and Macalyne Fristoe

The state objective of this test if "to provide a systematic means of assessing an individual's articulation of the consonant sounds".

This test has three subtests which are: (1) Sounds-in-Words Subtest, (2) Sounds-in Sentences Subtests, and (3) Stimulability Subtest.

Address:

American Guidance Service, Inc.
Publishers Building
Circle Pines, Minnesota 55014

The Templin-Darley Test of Articulation:

The Templin-Darley Artic Test provides detailed information about the child's ability to produce a wide range of speech sounds. The test can be used for either screening or diagnostic evaluations. Twenty-five different consonant sounds, twelve vowel sounds and six diphthongs are included on the 176 item test. The test is made up of a test manual, 57 cards using two, three, or four pictures to elicit the word in younger children, 89 stimulus sentences for older children and an articulation score sheet.

An evaluation of the child's intellegibility in conversational speech is made.

The manual contains simple directions for scoring the test.

Address:

Bureau of Education Research and Service
Extension Division
State University of Iowa
Iowa City, Iowa

Name of test: Assessment of Children's Language Comprehension (ACLA)
Publisher: Consulting psychologists Press Incorporated
577 College Avenue, Palto Alto, California 94306
Cost: $9.00
Advantages: The test gives suggested techniques for training in therapy. The test also is helpful in determining what level to begin thereapy.
Disadvantages: Directions for administration were not completely clear. There are no specific demonstrative instruction. No norms are given. The test uses black and white pictures which can be confusing and proportion of the pictures is poor.

Name of Test: Developmental Sentence Scoring
Publisher: Laura L. Lee, Department of Communicative Disorders, Northwestern University. Also can be found in JSHD, Vol. 36, No. 3, page 315.
Cost: None
Advantages: The test is based on a developmental scale of syntax acquisition. Analysis of a child's spontaneous, tape-recorded speech sample can enable the clinician to estimate to what extent the child has generalized the grammatical rules sufficiently to use them in verbal performance. With such a guide the clinicnian can plan lessons which present these structures in a presumably developmental sequence. The test judges language growth by syntactic complexity and not length of utterance. It also provides more information about the child's language performance than do quicker more superficial screening tests.
Disadvantages: The test is very time comsuming. Many important grammatical features are omitted from the DSS system: The use of articles, plurals, possessive markers, prepositional phrases, adverbs, word order, and word selection. There is room for error in both transcribing and scoring, and caution should be used in judging a child's overall language development on the basis of any single speech sample.

Name of test: Experimental Test Comprehension of Linquistic Structures
Publisher M.A. Carrow, the development of auditory comprehension of language structure in children. JSHD (May, 1968), 33: 105-108.
Advantages: No oral expression on the part of the child is required. An examination of the tables shows that the test is more comprehensive than many in that it attempts to assess the Child's implicit knowledge of the basic rules governing linquistic producation. This test represents a significant advance both in breadth and depthof assessment of language development.
Disadvantages: The measure is still in experimental form.

Name of test: Exploratory test of grammar: Development of Grammar
Publisher: M.F. Berry and R. Talbott, Exploratory test of grammar. 4332 Pine Crest Road, Rockford, Illinois 61107
Advantages: This is a simple test to establish the ability of a child to use morphological rules. There are 30 mythical drawings all on individual carboard plates. The figures are called mythical names and engage in mythical action. The invented nouns, verbs and adjectives used in short passages appear below the figure. The child is asked to supply the appropriate inflection. When asked to supply the correct plural ending to a noun which has been made up, this shows that the child has an internalized working system of plural allomorphs in English, in that he was able to generalize this to a new case and select the right form.
Disadvantages: Pronouns are avoided.

Name of test: Illinois Test of Psycholinguistic Abilities
Publisher: University of Illinois Press: Urbana, Illinois
Cost: $43.50
Advantages: The subtest and purpose of the subtests will be listed.
Auditory Reception: To measure receptive vocabulary in question form. Requires yes-no response verbally or gesturally.
Visual Reception: To measure ability to recall or derive meaning from pictures.
Auditory Association: To relate and express verbal concepts presented orally.
Visual Association: To identify visual associations presented pictorially.
Verbal Expression: To verbally describe objects.
Manual Expression: To describe objects through gestures.
Grammatic Closure: To comprehend and provide syntactic and morphologic markers following an incomplete sentence presentation using pictures.
Visual Closure: To assess ability to identify objects from incomplete visual presentation.
Visual Sequential Memory: To assess digit span memory.
Auditory Closure: To assess ability to fill in missing parts deleted from a verbal presentation and to produce the complete word.
Sound Blending: To synthesize separate parts of a word and to produce an intergrated whole.

Name of test: Infant Speech and Language Development
Publisher: Volta Bureau Review, Vo. 67, No. 6, June 1965. Pg. 414-419
Cost: None
Advantages: Information is catagorized in terms of encoding and decoding. Always, sometimes, and never answers are required. It is easy to administer and transport.
Disadvantages: The answers depend on the memory of the parents. A clinician cannot observe and get answers herself.

Name of test: Myklebust Picture Story Language Test
Publisher: Grune and Stratton, Author: Helmer Myklebust
Cost: $20.00
Advantages: Some indication of intelligence can be determined. Norms are included. It can be a group or individual test. It is easy to administer.
Disadvantages: The subject has to be able to write a story. It is not easy to score.

Name of test: Northwestern Syntax Screening Test
Publisher: Northwestern University Press, Evanston, Illinois
Cost: $10.00
Advantages: This test is easily administered and can be given to large numbers of children simultaneously. A clinical setting is not necessary. Scoring is easily understood. The test is particularly beneficial to diagnosticians. Through the results they can feel clearly whether the child should have deeper testing in the area of syntactual development. The test involves: reception, comprehension and production. Also includes a form for black children, demonstration items and the children may hear the sentences more than once.
Disadvantages: This test would have little value if it were used as the only test for grammatcial development. The score from the test has no value unless the score is below the 10 percentile mark. Even then the test only indictes that there is a deficit, not where the deficit lies or how much of a deficiency is present. Also in being such a recent test little research has been done to prove its real value or improve its techniques. Pictures are not very good. It takes a long time to administer for a screening test. Norms are only given for upper and middle class children.

Name of test: The Houston Test for Language Development
Cost: $20.00
Advantages: The test is relatively inexpensive and simple to administer. There is no time limit. It includes receptive, expressive, and conceptual thinking at all levels. It could be used to measure the growth of language in children in order to determine the level of therapy needed and in addition measure progress with therapy. Objective scoring. The tests interests the child. Materials are easy to replace. Tests infants as well.
Disadvantages: The age levels for this test have been stated in broad rather than specific terms. Unclear directions. Poor questions in many instances. The clinician must interpret verbalizations of the child. This test is not as highly standardized as are some other tests of this type.

Name of test: The Michigan Picture Language Inventory
Publisher: W. Wolski, Ann Arbor, Michigan, The University of Michigan, 1962.
Advantages: The test is pre-divided into 9 principle sections each testing a particular class or words: (1) singular and plural

nouns, (2) personal pronouns, (3) possessives, (4) adjectives, (5) demonstratives, (6) articles, (7) adverbs, (8) prepositions, (9) verbs and auxillaries. Scoring is fast and easy. The test has a separate part for testing just vocabulary.

Disadvantages: The standardization sample is limited to children 4-6 years of age. It would take a long time to administer the sentences by the clinician.

Name of test: Utah Test of Language Development (UTLD)

Publisher: M.J.Mecham, J.L. Jex, and J. D. Jones
Box 11012, Salt Lake City, Utah: Co municative Research Associates

Advantages: The test is designed for use with aphasic and hyperactive brain-injured individuals so it is not a timed test and can be administered in more than one setting. It is a very simple measure and may be most useful as a checklist of the normal development of language before one undertakes a thorough study of the child's linguistic deficiencies.

Disadvantages: The raw score may be translated into a language-age equivalent but because of the small sampling standard scores and percentile equivalents could not be established.

Name of test: Verbal Language Developmental Scale

Publisher: American Guidance Service, Inc., Publisher's Building
Circle Pines, Minnesota 55014

Advantages: This test can be used in a parent interview if the interviewer is familiar with the scale. It gives information concerning that language level the child seems to operate on.

Disadvantages: The scale relies on parental information rather than on the child's observed behavior. The information is somewhat arbitrary depending on interviewer and informant.

Informal Procedures Useful for Language Assessment

1. Spontaneous Language Sample: Gather fifty to one-hundred utterances (excluding any responses to specific questions).

2. Elicited imitation: Child repeats sentences illustrating model transformations.

3. For interpretation of the above techniques, refer to:

   a. Chomsky, Carol, The Aquisition of Syntax in Children from 5 to 10. M.I.T. Press: Cambridge, Mass., 1969

   b. Fraser, C., Bellugi, U. Brown, R,, Control of Grammar in Limitation, Comprehension, and Production. Journal of Verbal Learning and Verbal Behavior, 1963, 2, 121-330 (1966).

   c. Lee, Laura L., Developmental Sentence Types. Journal of Speech and Hearing Disorders, 31, 311-330 (1966).

d. Menyuk, Paula, A preliminary Evaluation of Grammatical Capacity in Children, Journal of Verbal Leaning and Verbal Behavior 1963, 2, 429-439.

e. Menyuk, Paula, Sentences Children Use, M.I. T. Press, Cambridge, Mass., 1969

3. Behavioral Observation to Determine Performance Factors:

a. Motor Control
   1. Dysarthria
   2. Apraxia

b. Memory
   1. Long term
   2. Short term
   3. Sequencing

c. Attention
   1. Hyperactivity
   2. Auditory and visual distractibility
   3. Perseveration

Auditory Memory Span: The number of related or unrelated items that can be recalled immediately after hearing them presented. Tests: Schuell's aphasia test contains phrase-repetition tasks.

Schuell, H. 1965. The Minnesota Test for Differential Diagnosis of Aphasia; administrative manual and card materials. Minneapolis, University of Minnesota Press.

Test of digit span:
McCarthy and Kirk's (1963)

McCarthy, J., and Kirk, S. 919630. The construction, standardization and statistical characteristics of the Illinois Test of Psycholinguistic Abilities.
Madison, Wis., Photo Press.

ITPA and Weschler Adult Intelligence Scale (1955)

A subtest of Carrol and Sapon's (1959) Modern Language Aptitude Test that is predictive of language learning ability is the Phonetic Script Test. A test of the ability to hold sound sequences in memory during shifts of attention, it requires repetition of nonsense syllables after performing a different task.

Carroll, J., and Sapon, S. 1959. Modern Language Aptitude Test, form A. New York, Psychological Corporation.

Mietraux adaptation of Anderson's test for Auditory Memory Span for Speech Sounds.

The vowel, dipthong, and consonant units are non-meaningful, progress in number in the series, and are arranged so that the sounds are evenly distributed throughout the test.

Tests with auditory memory span included:

1. Utah test of language development
2. BICD - Behavioral Index of Communicative Disorders

GROSS MOTOR TESTS

Developmental Test of Visual-Motor Integration
keith E. Berry and Norman A. Buktenica

Purpose: The purpose of this test is for educational assessment with emphasis on the pre-school group.

Advantages: Included in the test are 24 stimulation cards for remedial work, and worksheets for assessment and remediation. The test consists of 24 geometric designs (long form) arranged in increasing difficulty. The ceiling for the test is 3 consecutive failures.

Disadvantages: The problem is that the scoring procedures of the pass-fail system are not straight forward and contain a high degree of subjectivity.

Address: Folett Education Corp.; Follett Publishing Co., Chicago, Ill.

McCarthy Scales of Children's Abilities

Purpose: The different areas covered in the test include: verbal, perceptual performance, Quantative, General Cognitive, Memory, and Motor. Under each of these categories, different tasks are covered. Under the area of Motor, the following aspects are included: leg coordination, arm coordination, imitative action, draw-a-design, and draw-a-face.

Address: unknown

Osterestsky Test of Motor Proficiency and Lincoln Osterestsky Motor Development Scale

Purpose: This test measures maturational components. The six components of Motor ability are: static coordination, dynamic coordination of the hands, dynamic coordination in general, speed of movement, simultaneous voluntary movement, and asynkinesia. The revision of this test is called the Lincoln Osterestsky Motor Development Scale for 6-12 years. It contains 36 items arranged in order of difficulty.

Advantages: This test provides good instructions, is simple to administer, is inexpensive, and the scoring is well defined. It's reliability was tested by the odd-even method.

Disadvantages: It relies heavily on the manual. This test is not a measure of strength or power.

Address: American Guidance Service, Inc., Circle Pines, Minn. 55014

Southern California Motor Accuracy Test
A. Jean Ayres

Purpose: The two-fold purpose of this test is: a) "to measure the degree of an changes in sensorimotor integration of the upper extremities of individuals with nervous system dysfunction" and b) "to assist in making diagnoses of perceptual-motor dysfunction in young children". The task involves hand-eye coordination function involving sensory information from eyes, touch, and proprioceptors integrated together, along with motor planning and upper motor neuron functioning.

Advantages: It takes 10 minutes to administer to an individual and consists of tracing an irregular 51" black line scored on speed and accuracy.

Disadvantages: The only problem is the subjectivity of the scoring.

Address: Western Psychological Service; Box 775; Beverly Hills, Califorinia

BOOKS AND MATERIALS FOR LEARNING PACKETS

THE CHILD SPEAKS, Margaret Byrnes. New York: Harper and Row, 1965.

These speech improvement materials were planned to enable children who use them to listen to others as well as themselves and to use normal speech patterns when they talk. The book presents good suggestions for materials, includes action game references, records, books, and songs, as well as the addresses of companies where these are available. Many of the materials can be obtained at a toy store or at the grocery store, especially the story book and game activities. Additional information includes prices and references for additional reading. Although the materials are geared for the kindergarten age child, many of them can be adapted to younger or older children, as they all emphasize work on the specific sounds.

THE GOLDERN PICTURE DICTIONARY, golden Press, New York.

This provides an excellent reference for pictures and more pictures the various activities which the parent would like to do. The pictures can be cut out and put on cards or included in game activities for the various sounds or language concepts. It is an inexpensive way to find pictures and use them in a variety of ways. All the pictures and words are in alphabetical order for easy finding, and the definitions will also be good to include with the pictures.

GUIDE FOR LANGUAGE AND LISTENING DEVELOPMENT, Project H, District 110, 1965.

This book describes a language development program based on materials from the Peabody Language Development Kit #P as well as many other materials. It includes listening activities, language units, inventory of materials, list of records and filmstrips, Instructo Aids, and reference books. The lessons are divided up according to materials, purposes, listening time, story time, sharing time, pantomine and many other areas. This program is excellent for group but can be individualized very easily. It is excellent for materials structured toward developing good listening and speaking skills, providing work in the areas of nouns, pronouns, and verbs, and providing new and different materials which can be easily purchased or obtained for the home program.

HELPING YOUNG CHILDREN DEVELOP LANGUAGE SKILLS. A BOOK OF ACTIVITIES, by Merle Karnes, Arlington, Virginia; Council for Exceptional Children, 1968.

This book is a good book for specific activities related to the Illinois Test of Psycholinguistic Abilities. If the parent has specific areas recommended to her for work by the speech clinician, she can structure home activities effectively with these activities. The activities suggested are especially good for pre-school children, and emphasize listening skills and verbal expression, motor expression, verbal associations,

auditory memory, and visual closure. The materials and procedures are given as well as good suggestions which the parents can use in the home program.

Learning Abilities Diagnostic and Instructional Procedures for Specific Early Learning Disabilities, By Anne H. Adams, senior author, Threshold Dividion, the MacMillan Company, New York, 1972.

This is a loose leaf notebook designed as a handbook for classroom teachers and other educators to recognize and work with individually disabled children. There are seven areas covered in the notebook that were prepared by a specialist in that particular field. They are: "Learning Disabilities in Early Children" by Gale Lambright. "Emotional Disturbance and Socail Maladjustment: by Frank Zehbach; "The Physically Handicapped Child in the Classroom" by Frances P. Connor and Joan W. Baken; "The Young Child with Visual Impairment" by Don Walker; "Hearing Impairment in the Young Child" by Ronald Evelsizer; and "Language Delay in the Young Child" by Lear Ashmore.

Each of these sections gives a description of the problem, the watch-signs and observed characteristics to be seen, and a list of several formal assessments of the problem, breaking it down into specific problems of the modality. Then, several Instructional Extensions are given, meaning that the author proposes activities for the individual child in his individual problems.

A very concise record keeping system is at the end of the notebook. There is a checklist with dates and a rating scale (1-5, always-never) for improvement and carryover to be watched carefully. The records keep close tabs on each of the seven categories.

SOMETHING TO SAY ALL THROUGH THE DAY, by Betty McClung. Interstate: Banville, Illinois, 1968.

This book offers some excellent suggestions for games and story activities for speech improvement. The activities are organized in unit areas, eg. personality, speech exercise, math, seasonal, and <u>just for fun</u>. The pictures are clear and easily traceable, and they are original and interesting to children. The stories will encourage imagination and all materials may be adapted for speech notebook and home speech work. This is an excellent reference for parent made materials.

WHAT'S ITS NAME, by Jean Utley, Interstate, Canville, Illinois.

This is an excellent book for tracing pictures for use in notebooks or other activities. The pictures range from large category pictures to smaller ones which could be used for language concepts as well as work on specific sounds. The pictures are included under the following areas; colors, animals, furniture, parts of body, things found outdoors, bit to little, familiar nursery rhymes for flow of ideas and action. The pictures are familiar and expecially good for vocabulary building, work on action verbs and categories, and conversational sppech activities. A parent will find a gold mine of ideas in it for speech materials.

LANGUAGE PROGRAMS AND BOOKS

Goal
Publisher: Milton Bradley Co., Spring field, Massachusetts 01101
Cost: $100.00
For age:

The GOAL is a language development kit with game orientated activities for learning. It was developed by Dr. Merle Karnes. The kit contains 337 model lesson plans, games and activities and discussion pictures and story posters that go with the lesson plans. The model lessons and activitity materials are used to promote language processing skills. The areas for the lesson plans are the same as those subtests on the Illinois Test of Psycholinguistic Abilities. They include: auditory reception, visual reception, verbal expression, manual expression, auditory association, visual association, auditory sequential memory, visual sequential memory, auditory closure and visual closure. Each lesson plan contains the types of materials to use which are provided in the kit, the procedure for each lesson and the criterion level for success. The procedures are written so that persons not trained could easily follow them. This kit lends itself well to home assignments.

Bush, Wilma Jo, and Marian Taylor Giles, Aids to Psycholinguistic Teaching. Columbus: A Bell & Howell Co., 1969.

This book is a compilation of therapeutic activities at the psycholinguistic level of development. It is based on many of the subtests of the Illinois Test of Psycholinguistic Abilities. One of the most outstanding features of the book lies in its organization of an exceptionnally wide variety of developmental and remedial activities. The activities are grouped by interest and difficulty levels from first to eighth grade levels. The activities proceed from the very easy to the very difficult. They are also grouped in the areas of language development where they can be most effective in the learning and remediationg process. Each chapter covers a specific disability area and then goes into the various activities used at each grade level to strengthen it. In addition, a Materials List at the back of the book tells where to find many special materials mentioned in the books. Specific areas covered are: auditory reception, visual reception, auditory association, visual association, verbal expression, grammatic closure, auditory sequential memory, visual sequential memory, perceptual-motor activities, remedial recreation, visual, auditory, tactile and kinesthetic techniques for introducting stimuli. ($9.00)

LANGUAGE GAMES

Lakeshore Curriculum Materials: Early Childhood through elementary Catelog. 92-95 (1971-1973).

The following are some examples of curriculum materials for use in a language program. Other curriculum materials are available not only for a language program but for mathematics, social studies, science, music sudio visual, special eduction and many other areas.

Lakeshore Curriculum Materials
1144 Montague Ave.
San Leandro, California 94577

The following examples of language materials that can be used illustrate a brief description of each game, contents and price.

1. Link Letters:
Over 250 assorted die-cut letters on sturdy board. Easily linked together train-style to encourage word building and sentence building. Sample sentences and activities directions included. $1.25.

2. Pairs Game:
Excellent for developing memory and ability to concentrate. Game contains three sets of 40 cards each matching pictures to picture word to picture; and word to rhyming word. Based upon favorite "concentration" card game. Grades one through three. $1.15.

3. Consonant Bingo:
This phonic bingo game provides simple concrete experience with 288 pictures of words beginning with initial consonants, including consonant blends and digraphs. Each is labled, consonant underlined. Ages four to seven. $3.95.

4. Password Game:
This educational version of popular "password" game uses basic sight and picture words found in primary and elementary readers, encourages children learning through play. For two or more players. Grades three through six. $2.25.

5. Rhyming Zig-Zag Game:
This is a unique game designed to teach rhyming words and provide vocabulary building practice. Extremely flexible, it is adaptable to two to six players of varying ages. Includes selected word list. $6.50.

6. Silly Sounds Game:
This colorful game teaches consonants and helps build vocabulary. Children practice identification and sound of consonants by having to use a phrase containing two words with the same consonant sound. Two to six players. $6.50.

7. Dial A vowel Game:

New bingo type word game. A vowel is "dialed" and each player tries to use it in a three letter word on his card. Each card contains five unduplicated words; vowels are written with crayon and can be wiped off. Forty cards. $6.00.

8. Phonics Bingo:

This letter-word game uses cards with animal pictures on one side, their names on reverse. Players match first letter and sound of name with nine letters on card. Forty game cards. Four hundred markers, 26 call-out cards. $6.00.

9. Picture-Word Matching Game:

For individual work. Student matches picture on left with name on the right by a connecting crayon line. Each of the 31 cards contains five pictures and words keyed to alphabet, vowels, dipthongs and digraphs. $3.00.

10. Word and Sentence Builders:

Teachers reading by building words into sentences. Alphabet letters and basic primary grade words are goruped into simple sentences and small stories by learner. Hundreds of words printed on both sides of heavy stock. $1.25.

11. Sentence Builders:

A fun way to sentence sense. Learners respond quickly to using color-coded nouns, pronouns, verbs, adverbs, adjectives, prepositions, conjunctions and interjections to build complete, sensible sentences. 312 word cards; 98 award cards; and four 18" card racks. $6.00.

APPENDIX D

BOOKS AND MATERIALS FOR THE CLINICIANS: THERAPY

Alexander Graham Bell
Association for the Deaf, Inc.
Washington, D.C.

Auditory Training for the Child, M. Whitehurst. Grade lessons from very simple to difficult. ($5.95)

Talking Time, Louise Scott and J.J. Thompson. The Parents can use this book to extend the child's school experiences at home. The activities, including poems and stories, can be used during "Talking Time" with the parents and child sharing the fun, humor, and delight of sound-oriented materials. The activities provide additional auditory stimulation and reinforcement of correct speech patterns. This book is a non-technical book to aid in correcting sound substitutions and improving speech difficulties in all children. ($8.50)

Better Speech and Reading. Flexible exercises for use in speech corrective and remedial reading in the first 6 grades. The correction of defective sounds. A teacher's manual of ear training stories and articulation activities. ($6.00)

Board of Education of Montgomery County
Rockville, Maryland

"Hey, I got Sump'n to Tell You, an' It cool!" A class for children with severe language disabilities. Describes the Joint Special Language Class a cooperative undertaking of the Montgomery County Public Schools and the Easter Seal Treatment Center of Rockville, Maryland. It's purpose was to find out how children with severe language problems could be taught academically in the classroom by a "teacher - therapist" who understood their language and their learning problems. (approximately $3.00)

Charles E. Merrill Publishing Company
Columbus, Ohio

Aides to Psycholinguistic Abilities, Bush and Giles. A compilation of therapeutic activities at the psycholinguistic level of development, based on ITPA. (approximately $5.00)

Council for Exceptional Children
Arlington, Virginia

Helping Young Children Develop Language Skills. A Book of Activities BY Merle Karnes. This book is a good book for specific activities related to the Illinois Test of Psycholinguistic Abilities. If the parent has specific areas recommended to her for work by the speech clinician, she can structure home activities effectively with these activities. The activities suggested are especially good for preschool children, and emphasize listening skills verbal expression, motor expression, verbal associations, auditory memory, and visual closure. The materials and procedures are given as well as good suggestions which the parents can use in the home programs. ($3.00)

Mrs Jan Nordenson
Audiologist Asst.
State of Alaska
Dept. of Health and Social Services
Pouch H
Juneau, Alaska

"Better Speech and Hearing in the Classroom." Excellent Resource book for Teachers. (Free upon request)

Fearon Publishers
2165 Park Boulevard
Palo Alto, California 94306

" For Speech Sake" by Ruth Jones. This book has lots of good ideas for work with speech sounds. Included are games and activities for work on various sounds for the young child. The book also has a variety of stories and poems, jingles, and ideas for each sound. There are little pictures in this book, but the references are complete. It will give you lots of ideas for parent-made materials. ($1.50)

"Speech Fun for Everyone" by Lloyd and Michael. A practice book for developing good auditory discrimination, control over speech mechanisms, and auditory memory in young children. Exercises are in the form of poems and "chime-in" sound-lines. Many suggestions for rhythmic and descriptive actions to accompany speech drills. ($1.50)

"Remediation of Learning Disabilities. A handbook of Psychoeducational Resource Program" by R. Valett. A developmental approach that defines 53 specific learning abilities and relates them to six major areas of learning - loose leaf binder. ($12.00)

Harper and Row, Publishers
Keystone Industrial Park
Scranton, Pennsylvania 18512

"The Child Speaks", by Margaret Byrnes. These speech improvement materials were planned to enable children who use them to listen to others as well as themselves and to use normal speech patterns when they talk. The book presents good suggestions for materials, includes action game references, records, books, and songs, as well as the addresses of companies where these are available. Many of the materials can be obtained at a toy store or at the grocery store, especially the story book and game activities. Additional information includes prices and references for additional reading. Although the materials are geared for the kindergarten age child, many of them can be adapted to younger or older children, as they all emphasize work in the specific sounds. ($6.00)

Interstate
Danville, Illinois

"Something to Say All Through the Day," by Betty McClung. This book offers some excellent suggestions for games and story activities for speech improvement. The activities are organized in unit areas, eg. personality, speech exercise, math, seasonal, and just for fun. The pictures are clear and easily traceable, and they are original and interesting to children. The stories will encourage imagination and all materials may be adapted for speech notebook and home speech work. This is an excellent reference for parent-made materials. ($3.95)

"What's Its Name", by Jean Utley. This is an excellent book for tracing pictures for use in notebooks or other activities. The pictures range from large category pictures to smaller ones which could be used for language concepts as well as work on specific sounds. The pictures are included under the following areas: colors, animals, furniture, parts of body, things found outdoors, big to little, familiar nursery rhymes for flow of ideas and action. The pictures are especially good for vocabulary building, work on action verbs and categories, and conversational speech activities. A parent will find a gold mine of ideas in it for speech materials. ($3.50)

"Sounds Like Fun", by Jayne Hall Parker. The Primary purpose of this book is to provide speech clinicians and parents with a practical aid to the development of listening skills in young children. It is dedicated to the "Tiny Tots." Sound discrimination is basic to speech improvement and one way to teach a child to discriminate between various sounds is to read jingles and rhymes to him that have a continual repetitive flow of these sounds. The jingles are delightful, and parents meet all his little friends--from Hippety Hop Bunny (h sound) to Red-Headed Woodpecker (d sound.) ($2.50)

"My Speech Workbook; Activities for the /s/ Sound." This will give the parent some ideas for the speech notebook as well as give a variety of materials to use in working with the /s/ sound and other sounds. The materials, include poems, game activities, worksheets, drill practice materials, and other suggestions for carry-over which will be excellent to include in a speech book for the various sounds worked with. Many suggestions are given to both the parent and teachers on each page, which is directed toward helping the parents and teachers to use the materials more effectively. There are so many settings (eg. grocery store, school work, television, etc.) It also gives a complete alphabetical listing of rhymes, poems, and stories which can be used with various sounds. ($4.00)

"Early Childhood Education", by Dr. Evangeline Ward. New approaches, materials, and equipment for the living learning and teaching learning processes with an educational setting. Excellent for personnel working with pre-school children.

Western Psychological Service
Editorial Dept.
Box 775
Beverly Hills, California

"How Children Learn to Speak" Excellent book for clinician to use in present speech and language development to parents. ($1.75)

MAGAZINES

The Exceptional Parent
Box 101
Back Bay Annex
Boston, Massachuessets 02117

Subscription rate: $10.00/year

Brings professional expertise to parents in a manner and language which they will find of practical use. The Exceptional Parent also presents the very special practical wisdom of parents who have developed ingenious solutions to their own special problems in helping their children to develop. Professionals have found this magazine useful as a resource for themselves and as a means of stimulating discussions with parents, both individual, and in groups.

BOOKS FOR PARENTS

CEBCO Standard Publishing Co.
104 5th Ave.
New York, N.Y. 10011

Teach YOUR Child to Talk by CEBCO. This book is part of a kit called Teach Your Child to Talk designed for use in a series of workshops for parents of pre-schoolers. These workshops are of significant value in helping parents learn more about a child's speech and language development. ($1.50/copy)

"Teach Me To Talk". This pamphlet is designed to help parents understand how speech and language begin and is part of a kit called Teach Your Child to Talk, to be used in a series of workshops for parents of pre-schoolers. This pamphlet has been prepared for people interested in how children learn to talk. (25¢/copy)

Fearon Publishers
2615 Park Boulevard
Palo Alto, California 94306

Modifying Children's Behavior: A Guide for Parents and Professionals by R. Valett. This book is designed to help parents recognize their children's problems and deal with them effectively. Nine major programs are included several forms for recording various aspects of children's behavior are included along with a list of references and audiovisual aids for parents use. ($2.75/copy)

Mississippi State University
Pre-school & Early Education Project
College of Education
Drawer EP
Mississippi State, Mississippi 29762

Parents Can Teach Too by E. Rainey. Written for parents especially. Contains suggestions and ideas for parents to follow in reinforcing pre-school and early education programs in the home. ($2.10/copy)

Research Press Co.
CFS Box 3327
Champaign, Illinois 61820

Living with Children New Methods for Parent and Teachers. The primer in behavior modification for parents and teachers uses programmed instructional frames. Provides a guide for better understanding behavior of both parents and child - useful basis for planning what parents can do to change situations. ($3.00/copy

Interstate Co.
Danville, Illinois

"The Parent Interview". L. Emerick. Concerning parent interviewing. Attention is focused on the diagnostic interview as it relates to information - gathering and information - giving phases. ($1.50/copy)

"Helping the child to Listen and Talk: Suggestions for Parents and Teachers". Gives a good picture of the child with a speech and hearing problem. It is intended to answer some of the questions posed by the classroom teachers and parents and to provide some suggestions for ways in which they can help a child who has a speech or hearing disorder. (50¢/copy)

"Toward Understanding Stuttering" by Wendell Johnson. A Pamphlet directed toward parents of a stuttering child with helpful information about what a parent can do. Excellent information and reading vocabulary is at a good level. (50¢/copy)

"The Stuttering Child In the School and in the Home": Pennington, and James. Pamphlet addressed to teacher and parents. It is written to suppliement the speech therapists work with the stutterer, it helps the parents to understand and appreciate the stuttering child's problems and also give them an understanding of what the school and therapist are doing to help the child (50¢/copy)

Mississippi State University
Pre-school and Early Education Project
College of Education
Drawer EP
Mississippi State, Mississippi 29762

"Parents Can Teach Too": E. Rainey.. Written for parents especially contains suggestions and ideas for parents to follow in reinforcing pre-school and early education programs in the home.

Research Press Co.
CFS Box 3327
Champaign, Illinois 61820

Living with Children New Methods for Parent and Teacher. The primer in behavior modification for parents and teachers uses programmed instructional frames. Provides a guide for better understanding behavior of both parents and child - useful basis for planning what parents can do to change situations ($3.00/copy)

Parents are Teachers: A Child Management Program. This book is designed to help parents learn to be more effective teachers of their children. The program shows parents how to systematically use consequences to deal with children in positive ways what children need to learn to become effective people ($3.75/copy)

PAMPHLETS FOR PARENTS

Alexander Graham Bell Association
1537 45th Street
Washington, D.C. 20007

"A Home-Made Curriculum", by David L, Katz. Parents' responsibilities to help a child overcome hearing handicap by being sure he understands the why and how of all things around him; examples everywhere that the alert parent can use to help his child understand the work-a-day world. (25¢/copy)

"Preparing Your Child for His First Year Away From Home", by Winifred Northcott. Parents of young deaf children can help their youngster adjust to the first year at a residential school if they make careful preparations well in advance. The attitudes of the parents and other members of the family are important to the childs easy adjustment to the new experience. (25¢/copy)

"Reading List for Parents". List of suggested books, pamphlets, and articles for parents of hearing impaired children. (25¢/copy)

Eliot Pearson Alumnae Association
Department of Child Study
Tufts University
Medford,Massachussetts

"A Bibliography of Books for Young Children", by M. Chandler. Excellent list of recommended children's books. (75¢/copy)

"Formulas are for Fun." Gives parents some good ideas for creative activities at home - eg. directions for making clay, finger paints, etc. (75¢/copy)

Public Affairs Pamphlets
22 E. 38th Street
New York, N.Y.

"You and Your Hearing", by Horton Clanfield. Information about and causes of impaired hearing, types of hearing loss, treatment of hearing problems, and where help is available. (25¢/copy)

"Helping your Child Speak Correctly". An Excellent booklet to provide to parents information about speech and hearing problems as well as good activities which the the parents can use at home.

Volta Bureau
3417 Volta Place N.W.
Washington, D.C. 20007 (Through Alexander Graham Bell)

"If your Child is Deaf". Includes questions parents of deaf children often ask, and had them answered by experts. Emphasizes parental role in the development of their deaf child's speech and language. (25¢/copy)

Association for Childhood Education International
3015 Wisconsin Avenue, N.W.
Washington, D.C. 20016

"A Child Right to Expressive Arts", 1969 - Encourages an environment allowing the creativity to flourish. (15¢/copy)

"Children's Views of Themselves". Self estimates in behavior, self concepts. 36 pages. (75¢/copy)

"Bits and Pieces", 1967. Uses of finds, left overs and giveaways to increase childrens' skills and learning. 72 pages. ($1.25)

"Children's Books for $1.50 or less", 1969 revision. Classified list of inexpensive, approved books. 48 pages ($1.00 each)

"Color Book Craze", 1964. Creative as opposed to ready-made. 8 pages. (25¢/copy)

"Play-Children's Business". Guide to selection of Toys and Games: Infants to 12 years old. Emphasizes play as being most complete of all education processes. It influences intellect, emotions, and body of whole child. It also emphasized play as a learning activity and serves function of a non-verbal mode of communication. Includes guide for selection of toys and games, creative uses of inexpensive materials, travel activities, and films. (75¢/copy)

Cebco Publishing Company
104 5th Avenue
New York, N.Y. 10011

"Teach Me To Talk". This pamphlet is designed to help parents understand how speech and language begin and is part of a kit called Teach Your Child to Talk to be used in a series of work shops for parents of pre-schoolers. This pamphlet has been prepared for people interested in how children learn to talk. This booklet helps parents understand how speech and language begin.

Interstate
Danville, Illinois

"Is your Child Beginning to Stutter", by Elvena Miller. "For the Parents of a Child Whose Speech is Delayed". Speech and home, how speech is learned, definition and causes of delayed speech, what parents can do.

"Helping the Child to Listen and Talk. Suggestions for Parents and Teachers". Gives a good picture of the child with a speech and learning problem. It is intended to answer some of the questions posed by the classroom teachers and parents and to provide some suggestions for ways in which they can help a child who has a speech or hearing disorder.

Interstate (continued)

"Toward Understanding Stuttering', by Wendel Johnson. A Pamphlet directed toward parents of a stuttering child with helpful information about what a parent can do; excellent information and reading vocabulary is at a good level.

Metropolitan Life Insurance Company
Health and Welfare Division
1 Madison Avenue
New York, N.Y. 10010

"I Won't, I Won't". A pamphlet revealing glimpses of children in problem situations at various ages - for parents, teachers, and others who are partners in search for great understanding. This is part of a series designed to call attention to the mental needs and problems of youngsters. Free upon request.

"Growing and Learning - Early School Years". This booklet outlines some of the common characteristics of children in the early school years - this information should help parents and teachers to notice some early signs of possible behavior problems.

National Easter Seal Society for Crippled Children and Adults
2023 W. Ogden Avenue
Chicago, Illinois 60612

"Bright Promise". For the child with cleft lip and palate. Cause of cleft lip and palate, repair of cleft lips and palate, speech work; other questions parents should have about health, personality, etc. (25¢/copy)

"You and Not Alone", by Lawrence Linck. When, where, and how to find help for the crippled child. No. 4 (25¢/copy)

"On Being A Parent of a Handicapped Child", by B. Spock, the internationally known physician and author points the way for parents in planning their own and their crippled child's future. He tells where and how to find help if it is needed. No. 8 (25¢/copy)

"Why Did This Have to Happen", by Earl Miers. An inspirational open letter by a wisely known writer and editor who speaks with understanding insight, and personal experience of problems faced by those who are handicapped. No. 1 (25¢/copy)

Public Affairs Committee
381 Park Avenue South
New York, N.Y. 10016

"Helping your Child Speak Correctly:, by John Bryant. This pamphlet gives excellent information about speech and language problems in the young child and gives suggestions for home activities and referral for services (25¢/copy)

Research Press Company
Department 4
Box 3177
Champaign, Illinois

"Help these Kids Are Driving Me Crazy", by Dr. Ronald Carter. A clever yet powerful manual exclusively for teachers who wish for and need better classroom control.

"Parents are Teachers", by Wesley Becker. Has been designed to help parents learn to be more effective teachers of their children. The programs shows parents how to systematically use consequences to teach children in positive ways what children need to learn to become effective people.

"Living with Children", by Gerald Patterson and Elizabeth Guillion. This book presents programmed instruction about general principles helpful in understanding ordinary and adult behavior. This book will provide a guide for better understanding of the behavior of both parent and child.

Superintendent of Documents
U.S. Fort Printing Office
Washington, D.C. 20202

"A Child With A Cleft Palate", 1953. Information about causes of cleft palate, ways of treating, speech therapy geared for lay person, parent. (10¢/copy)

"The Child who is Hard of Hearing". Causes of hearing problems, services available, parent. (10¢/copy)

"Your Child's Play", #2 by Grace Langdon. Written by one of the nations' outstanding authorities especially for parents. This booklet richly describes what toys mean and to any child how play can contribute to family living (10¢/copy)

"Your Child from 1-6". This pamphlet covers the years from 1-6. Its purpose is to help you understand how your child grows and how you can help him. Emphasizes parents are the major influence in their children's period. (10¢/copy)

"Learning to Talk". Speech Hearing, and Language Problems in the Pre-school Child. Includes definition of communication problem how children become able to talk, what may be involved if your child has trouble learning to speak, and the concerned parent. (45¢/copy)

The Exceptional Parent
Box 101
Back Bay Annex
Boston, Massachussetts 02117

"Brings professional expertise to parents in a manner and language which they will find of practical use. The exceptional Parent also presents the very special practical wisdom of parents who have developed their solutions to their own special problems in helping their children develop professionals have found this magazine useful as a resource for parents.

Mississippi State University
Pre-School and Early Education Project
College of Education
Drawer CP
Mississippi State, Mississippi 29762

"Language Development Program for Pre-school Children with Developmental Problems", by Ernestine Rainey. Program consists of structured lessons placed in settings psychologically near to economically disadvantaged children - excellent in terms of objectives and activities. ($4.00)

Northwest Regional Education Laboratory
400 Lindsay Building
710 S.W. Second Avenue
Portland, Oregon 97204

Coordinated Helps in Language Development (CHILD) - Language lessons for Kindergarten. This is a teacher's guide which utilizes a direct approach to an improved language program in the kindergarten. The program is linguistically based and includes the oral language skills that are requisite to success in reading and writing. The lessons have been prepared in nine areas of language learning - each includes specific behavioral objectives, suggested materials and procedures for teaching and observations. (Approximately $4.00)

West Side School
Box 428
Magnolia, Arkansas

Curriculum Guideline - Pre-School Handicapped Program ($1.00)

Word Making Productions
60 West 400 South
Salt Lake City, Utah

Fun Phonic Jingles, by Pat F. Peterson. This paperback book has big, clear pictures which will appeal to a child's imagination. All pictures may be colored or traced for the sounds needed (eg. /f/, /th/, /ch/, /k/,) and have short poems to go with them. The materials are excellent for carry-over materials and for something new and different for the child's interest. The parent will find them great to include in the speech notebook or in the home program activities. ($3.00)

Developing Precisions in Recording Speech Behaviors. Method for recording speech behavior using the two cycle graph; introduces precision into instructional speech procedures. ($3.00)

PAMPHLETS AND BOOKS FOR CLINICIANS
TO USE IN PARENT TRAINING

Alexander Graham Bell
1537 45th St. N.W.
Washington, D.C. 20007

"Infant Speech and Language Development", by Daniel R. Booner; chart and information about development. (10¢/copy)

"Oral Education: A Challenge and a Necessity", The Alexander Graham Bell Assn. for the Deaf, 1968. (25¢/copy)

"Model Programs: Childhood Education: Mothers' Training Program, Urbana, Illinois" (25¢/copy)

"Language Development Through Parent Counseling and Guidance," by Winifred Northcott. (25¢/copy)

"If Your Child is Deaf". To promote the teaching of speech, lipreading, and the use of residual hearing to the deaf. (25¢/copy)

"A Parent-Oriented Nursery Program for the Pre-school Deaf Children--A Follow-up Study", David M. Luterman. Program centers on active participation of the parent in the therapeutic processes involved in educating a deaf child. (25¢/copy)

"The Parents' Role in Encouraging Speech Growth", by Paul Rotter: Suggestions for aiding the parents, how the parent helps his child develop speech, and how the parent and the teacher work together. (25¢/copy)

"Parent Counseling: 1961-1968:" George W. Fellendorf and Icie Harrow, results of a survey from parents of deaf children conducted by the Alexander Graham Bell Assn. for the Deaf (25¢/copy)

"They Hear the Sound Of Silence" By Samuel Moffat: recognition of deafness and work with parents. (25¢/copy)

DARCEE
Box 151
George Peabody College for Teachers
Nashville, Tennessee 37203

"A Guide for Home Visitors" (DARCEE) by Rosemary Giesy. The purpose of this guide to provide a framework of information for the persons who are in training to be home visitors - includes effective home visitor techniques and defines the role of a home visitor. It emphasizes a basic idea in home visiting which is to teach the mother to be an effective teacher of her child in her own home. ($3.00)

DARCEE (continued)

Children Learning: Samples of Everyday Life of Children at Home
A handbook which gives the professional a chance to look at some ways in which people, particularly mothers interact with young children. It gives description of various families, specifically of mothers' behavior and mothers' influence on children's language development. ($1.75)

Parent Groups. With a focus on precise bahavior management. ($2.00)

Home Programs ($2.50)

Demonstration and Research for Early Education ($2.00)

Division of Maternal and child Health
Kansas State Dept. Of Health
Topeka, Kansas

Stuttering - How Can My Child Overcome It. Pamphlet giving clear information about stuttering including practical suggestions for the parents. (approxiamtely 25¢/copy)

Eliot Pearson Alumnae Assn.
Dept. of Child Study
Tufts University
Medford, Massachussetts

" Bibliography of Books for Young Children" by M. Chandler. Excellent list of recommended children's books (75¢/copy)

"Formulas are for Fun". Gives parents some good ideas for creative activities at home - eg. directions for making clay, finger paints, etc. (75¢/copy)

Family Service Assn. of America
44 E. 23rd St.
New York, N.Y. 10010

"A Review of Research on Parent Influences on Child Personality" by Rita V. Frankiel. Survey of the highlights of research literature on an important aspect of family interrelationships. Effects of specific infant care practices, general patterns of parent behavior, attitude and motivation (25¢/copy)

APPENDIX E

ARTICULATION PROGRAMS

JOINT COUNTY ARTICULATION PACKETS
Cedar Rapids, Iowa

Purpose: A method of teaching speech skills (articulation), which utilizes small sequential steps of learning. These steps move from simple and easy tasks to complex and difficult tasks.

The therapist starts with syllables, then moves through the general steps of words, sentences, conversation. Reinforcement is utilized at each step and every level. The progression of the program is from presenting an auditory model for the client to saying the word by themselves (if the auditory model does not work, then use any method necessary to achieve correct sound production.

Advantages: The record keeping is most important, as it determines the next move in the program. Because of this importance, the discrimination of correct and incorrect productions and the use of appropriate reinforcement is a determining factor in success or failure of the succeeding steps.

F-Pack
Programmer, Evan Evans (1971)

Purpose: F-Pack is a programmed instructional package aimed at establishing the /f/ sound. It is designed to teach correct articulation of the /f/ in conversational speech in a "clinician-controlled speaking situation."

The objectives for the various steps include: production and stabilization of the /f/ in the initial, final, and medial positions, respectively; as well as production in phrases, simple sentences, and connected speech.

Advantages: The F-Pack kit calls for strict adherence since consistency is essential for evaluation of this experimental program.

K-Pack

Purpose: The K-Pack is a program instructional package designed to teach the children who misarticulate the /k/ sound to produce the /k/ sound correctly in conversational speech in the clinic setting.

Advantages: The K-Pack is easy to administer because it is a programmed approach and because the instructional manual gives explicit directions. It is very easy to score because a response is either right or wrong. Also the manual gives guide lines on how and when to reinforce and what to use to reinforce.

S-Pack
Mower, Et. Al.

Purpose: The "Modification of the Frontal Lisp Programmed Articulation Control Kit" is an effective program by which the /s/ sound is corrected.

It's basis is built upon two concepts: "successive approximation and differential reinforcement."

In addition, the program also includes a parent program to assist the client outside of the therapy session.

The /s/ Pack is used appropriately, is an effective programmed tool to aid in achieving the /s/ in conversational speech.

A SYSTEMIC MULTIPLE SOUND APPROACH TO ARTICULATION THERAPY
Doris P. Bradley and Robert B. McCabe

Purpose: This is a programmed approach to articulation therapy. It's main difference from traditional therapy and even other programmed approached is the multiple-sound approach.

Advantages: This has several values, first, "it avoids the clinicians decision of choosing one sound to teach in therapy"; second, "four or more sounds may be a part of the therapy everday"; and third, "each sound may be at a different program step."

The Arizona provides a numerical score which can be used to compare the pre and the post test and also contains a formula for determining the percentage of improvement.

LANGUAGE PROGRAMS

Peabody Language Kit
American Guidance: Circle Pines, Minnesota $40.00

Peabody - Level P = 3-5 years (mental age)
Level I = 4-6 years (mental age)
Level II = 5-8 years (mental age)

Effective for four types of children:
(1) Kindergarten kids from disadvantaged areas (such as Headstart)
(2) Average and above 3 and 4 year old pre-schoolers
(3) Young school age educable retarted children
(4) Pre-teenage trainable retarded kids

The kit was developed by Lloyd Dun, Kay Horton, and James O. Smith and is designed in such a manner so that anyone, with a little bit of training, can administer the program. Depending on the level, the kits include such materials as stimulus cards, materials for visual closure, records, large pictures, token chips for color and sequences, matching games for shapes and sizes, and materials for work with body size, shape, and clothes. The kit centers around the little character of P. Mooney.

The distar Language I Program
Engelmann, S., Osborn, J., and Engelmann, T.

Purpose: The Distar Language I Program is designed to teach basic language concepts to children. The Program follows one step at a time, teaching

children first to use full statements in identifying objects and then a variety of concepts that reside in familiar objects, such as color, shape, relative size and class name. When the children finish the Distar Language I program they should be able to understand the Language their teachers will use to explain and discuss the concepts and skills that students are expected to master in school.

The Distar Language I Program focuses on the language of instruction, that is the language needed to teach complex concepts. The concepts taught are those which are necessary for logical thought and for the child to understand what he is taught in school. It is essential to relate what the children have been learning in the formal language lesson to what is being done the rest of the day in school.

Teaching Resources Corporation
100 Boylston Street
Boston, Mass.

Program Auditory Discrimination in Depth
Charles and Patricia Lindamood $49.50

Purpose: A preparatory program of auditory perception, basic to reading, spelling and speech skills.

Attribute Games
Teaching Resources
Giant Set - $22.95; Desk top set - $10.95; Small set - $6.50

Purpose: For developing learning readiness, logical thinking, and cognitive skills.

Shape and color recognition; size discrimination; sorting and matching; set theory; relationships; comparisons; class building; language and vocabulary; thinking, reasoning and logic; problem solving; analysis and synthesis; are among the many skills developed and concepts learned through the concrete, manipulative, discovery-type experiences of the Attribute Games.

Erie Program
Daniel Hatton, Dr. Frank Pizzat and Jerome Pelkowski
Complete program - $69.95)four parts may be purchased separately

Purpose: Games to develop skills of perception and preceptual-motor integration for reading and writing readiness. Designed for use in pre-school, kindergarten, and particularly with children in primary grades who are having difficulty in developing reading skills.

The four parts are: Visual-perceptual games; perceptual bingo; visual-motor template forms; and perceptual cards and dominoes games.

Fairbanks-Robinson Program Level I
Complete - $79.00

Purpose: This program develops in-depth from the very beginning levels the basic perceptual skills a child must have in order to learn. Each concept

is developed in a series if carefully controlled sequences gradually increasing in difficulty.

Fairbanks-Robinson Program Level 2
Complete - $69.00

Purpose: Develops at a higher level all the skills introduced in Level 1, and introduces additional concepts making use of visual, manipulative and coordinative experiences.

People Profiles
Ms. Marion Eskay, and Ms. Janet Schimmel.
People profile-Ed Charles - $27.50; People profile 2-Tom Carvel - $27.50; People profile 3-Jose Feliciano - $27.50

Purpose: An auditory and graphic motivational reading series for development of reading, comprehension, vocabulary and spelling skills. Each profile consists of a recorded interview with the subject personality, biographical book with audioscript, and language development games on records and worksheets. A simultaneous auditory and visual approach reinforces perceptions, reading development, spelling, correct pronunciation, and phrasing.

Pupil Record of Educational Behavior
Ruth Cheves
Complete $46.00

Ruth Cheves Program
Ruth Cheves
$69.00 Each of the 6 parts may be purchased individually

Purpose: Consists of six groups of cards, puzzles and games, and is designed to help develop specific skills required within the broader curriculum areas of reading and math readiness. Each procedure or set of exercises also emphasizes the development of oral vocabulary and language comprehension in the context of the concepts being introduced.

Vanguard School Program
Janet Robinson and Barbara Schmitt
Complete set - $9.95; Part 1 - $3.50; Part 2 - $10.95; Part 3 - $10.95; Part 4 - $11.50

Purpose: Provides a basic groundwork in perceptual-motor skills to be used as a standard part of every early learning curriculum. Designed for general use in kindergarten and primary grades, the program also includes developmental and remedial activities for slow learners, the perceptual handicapped, and older students.

Rebus Peabody Rebus Reading Program
American Guidance, Circle Pines, Minnesota
$8.00 Special material and programs may be purchased separately.

Purpose: Is a programmed approach beginning reading instruction utilizing a vocabulary of Rebuses (picture words). Two characteristics of REBUS which particularly set it apart from traditional readiness and beginning reading programs are the incorporation of a programmed text format, and the use of Rebus as a bridge between spoken language and reading.

Teaching Research Expressive Language Program
John J. McDonnell, H.D. "Bud" Fredericks, David N. Grove

Purpose: This program focuses on language training procedures which deal with initial, oral, expressive language, and to initiate expressive language in the severely handicapped child.

PROGRAMS FOR THE PHYSICALLY HANDICAPPED

Buchwald, Edith Lawton, Physical Rehabilitation for Daily Living. New York: McGraw-Hill Book Co., Inc. (1952)

This book contains information on the activities required of the child who is confined to a wheel chair or is on crutches to be mobile. Techniques for manipulation of wheel chairs and other devices are discussed. Useage of this book would broaden the area in which the child could move and experience.

Kelly, E.M., and Harrison, D.G., "Essential Classroom Activity Skills for Orthopedically Handicapped Children" Exceptional Children. XIX, 174-178 (1953).

The article contains a test which is designed to define the child's physical skills on a maturity level.

Smith, N.P. "Some Ideas and Suggestions on One-handed Typing," The Crippled Child. XXXI, 20-23, (February 1954).

Some ideas and material suggestions are presented which will facilitate teaching the handicapped child to communicate through typing.

Physical changes may be necessary such as guidance bars, removal of unnecessary barriers to movement, and the like. One should remain flexible and create materials suited to the individual child's needs.

APPENDIX F

Name of Equipment - Cassette Tape Deck TC - 66
Company - Sony
Cost - $59.95
Name of Equipment - Cassette Tape Deck TC - 55
Company - Sony
Cost - $139.95

Background Information - TC - 66 is a portable ac/dc cassette recorder with push button operation, automatic recording control, a record interlock, TC - 55 has most all of the standard features of model TC - 66 plus a number of extras. It is a sub miniature battery operated portable cassette recorder. Some of the added features include balanced flywheels to eliminate tape distortion when carried, built in condensor microphone, auto stop, fast forward cueing with 3 - digit tape counter, and pause control with lock.
Ease of Administration - Both cassette recorders are portable and easy to administer. TC - 55 is much more compact than TC - 66.

Name of Equipment - Beltone 19 d audiometer
Company - Beltone
Cost - $485.00

Background Information - This equipment was designed for diagnostic testing by doctors, clinics, hospitals, schools, and industry. It may also be used for screening. It has the capacity for pure tone air and bone conduction testing and white noise masking. This machine is calibrated to the 1969 ANSI Standards.
Ease of Administration - This machine is portable and easy to administer. It includes; earphones for right and left ears, bone vibrator, frequency dial (125-8000 C.P.S.), intensity dial (0-110 dB ANSI), masking level (30-75 dB ANSI) interrupter switch, output dial for sending energy through right earphone, left earphone, or bone vibrator, and tone dial, and power switch.

HC Electronics,
250 Camiro Alto
Mill Valley, California 94941

HC 500 Phonic Mirror

Company - HC Electronics

Cost - Approximately $450.00

Background Information. The purpose of delayed speech playback is to eliminate the visual and auditory distractions of reels, meters, buttons, ambient sounds and to help the client close the feedback loop and self-monitor himself so that speech and language can better develop. The Phonic Mirror can reproduce voiceless sounds, lingual and lateral lisps out to 128 dB SPL on four headsets. It also has a two-track that will aid in language traning. It is 7" by 14" and weighs 10 pounds, and includes with it a master mic, cartridge of choice, speaker, listening center that can accept four headsets with individual volume and binaural balance controls.

HC 213 Phonic Ear - (For use in pediatric audiometry)

Company - HC Electronics

Cost - Approximately $300.00

Background Information. This equipment is designed for use in infant audiometry screening. A warbled signal shuts off automatically after the preset time duration, thus allowing the tester to constantly observe. The tester must note quantifiable responses of the infant and record these responses on the screening test form. The infant audiometer is 10" long, 2¼" in diameter, and has a 5" speaker. It weighs 1 3/4 pounds including one screening test pad and a battery and carrying case.

Name of Equipment - Portable Cassette Deck No. RQ 409
Company - Panasonic
Price - $46.95
Name of Equipment - Portable Cassette Deck RQ 212
Company - Panasonic
Price - $69.95

Background Information. RQ 409 ac/ battery cassette recorder is equipped with a built in condensor microphone, push button controls, Easy-Matic recording level control, automatic stop, volume control, cassette pop-up and earphone monitor. Cassette, batteries, ac cord, earphone, and dummy plug are included.

RQ 212 is a mini ac/ battery cassette recorder. It is equipped with a built-in condensor microphone, auto stop, battery/VU meter recording level and earphone monitor. Cassette, batteries, earphone, AC adapter/recharger case are included.

Both of the above cassettes are solid state. With an additional $4.95, a remote microphone can be included with the cassette decks.
Ease of Administration - Both are portable and easy to administer. RQ 212 is more compact than RQ 409.

APPENDIX G

FILM LIST

Available through: Harper and Row Publishers
Canfield Press
850 Montgomery Street
San Francisco, California 94133

1. Language Development (20 minutes): This film discusses a child's language process in the first four uears. The process is examined beginning with the development of phonemes, syntax, and semantics. It looks at the process by which language is acquired and how that acquisition can be influenced. A good film for discussion of language development.

2. Articulation Disorders (20 minutes): Individuals of different ages illustrate a variety of characteristic behaviors in articulation. Additional information is provided by the nature of questions asked by the clinicians during the film and the kind of activity presented. A printed instructor's guide accompanying the film provides a key to the location of information contained in the film and suggests uses for the films at different levels of study. A good film for those individuals who have general information about speech and language problems.

3. Language Disorders (20 minutes): This film gives a general introduction to language problems. It describes behaviors in language and gives additional information about language activities and techniques for rehabilitation. A good film for those individuals interested in having more and detailed information about language problems.

4. Stuttering (20 minutes): This film gives a good picture of the area of stuttering. It describes stuttering behaviors and gives techniques for working with a stutterer. A good film for those individuals interested in information about stuttering.

Available through: University of Wyoming Audio-Visual Services
Attention: Booking Clerk, Laramie, Wyoming 82071

1. Survey of Children's Speech Disorders (29 minutes): Color, 1961: Illustrates how children with problems in hearing, cleft palates, cerebral palsy, articulation, and stuttering learn to use and understand speech. This is a fairly good film for parents and teachers.

2. Report on Donald (20 minutes) BW, 1948: This film tells the story of Donald, a stutterer who underwent remedial measures at the University of Minnesota speech clinic. Review Donald's handicaps, his earlier experiences with his teachers and his schoolmates, his introduction to the speech clinic, and the careful program by which he learned to overcome his speech defect. This film is an older film but could be used to present general orientation to stuttering.

3. Thursday's Children (22 minutes) 1955: This British film shows how a group of young deaf children are led out of their world of silence by the devotion and skill of their teachers. It shows a child born deaf has far to go to attain normal associations and learning. However, with proper conditions, guidance, and understanding love, most of them can make the journey. This film is an older film but may be considered for general orientation to the world of the deaf.

4. Good Speech for Gary (22 minutes) 1953: This film presents the entire gamut of well-organized speech programs as it is carried out in the California schools (and elsewhere today). This film contributes to the understanding of children's speech difficulties and what schools can do to help children speak clearly and well.

5. Children with Cleft Palates (29 minutes) 1956: This film illustrates procedures which should be followed to encourage development of good speech in children with cleft lip and palate. This film provides general outline of treatment in relation to and developmental growth periods of children. This film demonstrates objectives of child stimulation and specialists concerned with care of child. (WU)

Available through: Health Education Services
Kansas State Department of Health
State Office Building
Topeka, Kansas

1. The Twig is Bent (20 minutes) 1954: This is the story of a seventh grade boy who is learning to overcome, as much as possible, the handicap of cerebral palsy, at the Cripple Children's School at Jamestown, North Dakota. He learns to walk with crutches to and from classes and can dress and feed himself. Speech is difficult, but he can say about 100 words intelligently.

2. Children of the Silent Night (25 minutes) color, 1963: This film portrays the education of a child who can neither see nor hear. Centered in the Perkins School for the Blind, the film presents the heartache, challange, and reward involved in such educational work.

3. Day at Washington Boulevard School (20 minutes) color, 1956: The film shows the activities of a Los Angeles elementary school of handicapped children. Stress is on normality of activity insofar as possible. Students are encouraged to help themselves and learn to cope with everyday situations.

4. One Small Candle (22 minutes) color, 1957: This film shows procedures in a clinic and private school for the severely retarded and handicapped. The film explains the types of examinations a parent might expect for his child in such a clinic. Correct guidance by parents is emphasized. Teachers demonstrate occupational therapy, recreational activity, and job training for the retarded child.

Available through: Metropolitan Life
1 Madison Avenue
New York, N.Y. 10010

"If These Were Your Children": A film focusing on the behavior of young Children to help interpret early clues to possible emotional problems. This film is based on the premise that children often reveal their thoughts and feelings more readily through behavior than through the spoken word. It is designed to help teachers, clinicians, parents and others: to understand signs of emotional difficulties; and to find ways of meeting emotional needs of children. The film is available for loan without charge through: Metropolitan Life
600 Stockton Street
San Francisco, California 94120
c/o Donald Boite

1. A time of Growing (25 minutes): This is an excellent film about developmental factors in learning. It discusses children as individuals and in a group learning situation. This is an excellent film and it is especially good for parents or teachers.

Available through: California Society for Crippled Children and Adults
251 Kearney Street
San Francisco, California 94108

1. A Place in the Sun (20 minutes): This film presents the world of the cerebral palsied child. It is an excellent film to present an orientation to the speech, language, and physical needs of the cerebral palsied child.

Available through: Mr. James Olson, Director
Minnesota Society for Crippled Children and Adults
2004 Lyndale
Minneapolis, Minnesota

1. Camp Courage (20 minutes): This film gives an excellent picture to summer camp facilities for speech and physically handicapped children. It gives information about the program and follow-up through out the year. This film is highly recommended.

2. If These Were Your Children (49 minutes): Minute film on child behavior planned to stimulate thought, discussion, and constructive action among individuals and groups who live and work with children. Shorter 29 minute version of this film entitled "The Time of Growing". Both films are available for loan without charge.

Metropolitan Life Insurance
Health and Welfare Division
1 Madison Avenue
New York, N.Y. 10010

3. Everything But Hear (1970): This film incorporates scenes from the 1955 productions, "Susan's wonderful Adventure" which features Susan at age 4¼, as she learned the basics of lipreading, speech and use of her residual hearing. Shows the Clarke school of the Deaf, established in Northampton, Mass. in 1967 helping deaf children. Rental approximately $8.00

4. In Terms of Speech
University of Southern California
Cashier's Office
University Park
Los Angeles, California 90007

"Can You Hear Me"?
International Film Bureau
332 So. Michigan Avenue

"Juniper Gardens"
Audio-Visual Center
University of Kansas
Lawrence, Kansas

"Teaching Verbalization by Contingency Management"
Westinghouse Learning Corporation
Box 5017
Church Street Station
New York, N,Y, 10049

"This is Courage": Captures the lively and inspring spirit of Camp Courage. Produced in 1967, this film reveals the wide range of daily activities and experiences enjoyed of both the physically handicapped and thoses youngsters with speech and hearing problems. (15 minutes) FREE

MISSCA
2004 Lyndale
Minneapolis, Minnesota